RAPID NUTRITION DETERMINANTS ASSESSMENT

AGAGO DISTRICT, UGANDA

NOVEMBER 2024 – JANUARY 2025

GOAL

ACKNOWLEGEMENTS

We extend our deepest gratitude to the Innovation Lab for providing the financial support that enabled the successful implementation of the Rapid Nutrition Determinants Assessment (RNDA) in Agago District, Northern Uganda. Your commitment to fostering innovation has been instrumental in advancing our understanding of the drivers of malnutrition in the communities we serve.

Special thanks go to **GOAL Program Technical Team** – Eilise Brennan for the exceptional leadership, technical guidance, and dedication throughout the project. We also appreciate the contributions of the **Nutrition Determinants Assessment Technical Working Group –** Lenka Blanarova whose expertise and capacity-building support were invaluable in ensuring the successful rollout of this initiative.

We are profoundly grateful to the communities of **Omiya Pacwa, Adilang, Patongo, and Lira Kato** for their active participation, cooperation and invaluable insights. Your willingness to share your experiences and validate findings was critical in shaping actionable recommendations and ensuring the relevance of this assessment.

Our sincere appreciation goes to the **enumerators and GOAL Uganda Staff,** whose hard work and dedication during data collection, community engagements and field activities were essential to achieving the project's objectives.

We thank the **Local Government authorities of Agago District** and health officials for their guidance, facilitation and support which ensured seamless collaboration and execution.

Finally, we acknowledge the participants of the review and reflection workshops. This project represents a collaborative effort, and we are deeply appreciative of everyone who contributed to its success. This marks an important step toward addressing malnutrition and empowering communities with sustainable data-driven solutions.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS

Rapid NDA: Rapid Nutrition Determinants Assessment

MOH: Ministry of Health Uganda

MNCHN: Maternal Newborn and Child Health

RUTF: Ready to Use Therapeutic Foods

MAM: Moderate Acute Malnutrition

GAM: Global Acute Malnutrition

SAM: Severe Acute Malnutrition

UNAP: Uganda Nutrition Action Plan

DNAP: District Nutrition Action Plan

VHT: Village Health Teams

SDG: Sustainable Development Goals

NCA: Nutrition Causal Analysis

Link-NCA: Link to Nutrition Causal Analysis

NGO: Non-Government Organization

NDA: Nutrition Determinants Assessment

ORS: Oral Rehydration Solution

NDWG: Nutrition Determinants Working Group

NIS TWG: Nutrition Information Systems Technical Working Group

TWG: Technical Working Group.

EXECUTIVE SUMMARY

This report represents the final findings from the Rapid Nutrition Determinants Assessment (NDA) conducted in Agago District, Uganda. The purpose of the assessment was to explore the underlying causes of malnutrition, focusing on socio-economic, environmental and behavioral factors, and to contribute to the refinement of the methodological guidance via piloting this novel approach.

The RNDA methodology has proven to be a cost effective and participatory approach, providing actionable insights into the key determinants of malnutrition in the district. The assessment utilized focus group discussions, key informant interviews and community validation exercises to ensure that the findings *were* context specific and relevant. A total of 498 participants across four sub-counties (Omiya Pacwa, Adilang and Lira Kato) were engaged.

KEY FINDINGS

- While food insecurity was initially presumed to be the primary driver of malnutrition, the assessment revealed a more complex interplay of determinants cutting across multiple sectors. Food security did not emerge as the leading factor; instead, the root causes were linked to low household resilience, non-optimal caregiving practices, heavy workload of women, poor maternal well-being, gendered decision-making, low access and utilisation of quality health services, including family planning, and seasonal fluctuations in food and income availability. These drivers reflect a convergence of Food Security and Livelihoods (FSL), Gender and Social Inclusion (GESI), and Health and Nutrition Education pathways.

- Limited access to income-generating opportunities—particularly among women—coupled with suboptimal decision-making regarding the allocation of household resources, significantly compromised dietary diversity and child-feeding practices. These socio-economic barriers are not only a reflection of FSL vulnerabilities but also point to underlying gender norms and knowledge gaps in maternal and child nutrition, necessitating cross-sectoral interventions involving livelihood support, GESI (gender equality and social inclusion) mainstreaming, and community health education.

- Seasonal variations in food access and household income were found to heavily influence nutritional outcomes, especially among vulnerable groups such as children under five and pregnant women. This underscores the importance of seasonally responsive programming that integrates both FSL strategies (e.g., post-harvest food preservation, income smoothing) and health system preparedness (e.g., seasonal nutrition surveillance and early action triggers).

RECOMMENDATIONS

- **Strengthen Household Resilience:** Future interventions should focus on improving household resilience through income diversification and better intra-household resource allocation, alongside food security measures.
- **Seasonal Interventions:** Programs should be adapted to address seasonal variation, including increased investment in anticipatory actions to strengthen community capacity to mitigate, respond to, and recover from seasonal shocks and stresses.
- **Improve Caregiving Practices and Mental Well-being:** Programs should focus on building the knowledge, skills, and self-efficacy of individuals and communities to overcome barriers to adopting optimal behaviours and transforming harmful social and gender norms contributing to non-optimal practices and poor maternal wellbeing
- **Enhanced Community Trust:** Future assessments should involve enumerators staying within the community throughout the data collection period, building trust and allowing for deeper, more meaningful conversations.
- **Health:** Invest in WASH and quality health services with a focus on addressing inadequate WASH infrastructure and practices, improving access to and trust in health services, tackling cultural barriers to care (including family planning), and strengthening addiction, mental health, and psychosocial support.

INTRODUCTION

CONTEXT

Agago District Located in Northern Uganda is characterised by its predominantly rural setting and a population that relies heavily on subsistence agriculture. The district faces persistent challenges of food insecurity, high poverty levels, and limited access to essential services, making it particularly vulnerable to malnutrition. With a population of over 280,000 people, the district's demographic profile includes a significant proportion of children under five and women of reproductive age, who are most at risk of malnutrition-related health outcomes.

Malnutrition in Agago is a pressing issue, with rates of GAM ranging up to 18% in communities like Patongo and significant micronutrient deficiencies often underreported. Seasonal variations exacerbate these challenges, with food insecurity peaking during the dry season due to poor agricultural yields and limited dietary diversity. Climate change has further intensified these issues with recurring droughts and unpredictable rainfall patterns affecting household food security and livelihoods.

The district's health and nutrition systems face numerous constraints, including inadequate infrastructure, a shortage of skilled personnel and limited coverage of essential nutrition services. Community health workers and village health teams (VHTs) play a crucial role in bridging these gaps but often operate with limited resources. Socio-economic factors such as poverty, gender disparities, low education levels, and inadequate water and sanitation infrastructure further compound the determinants of malnutrition.

Cultural and social dynamics also influence nutrition outcomes. Traditional dietary practices, coupled with limited awareness of optimal nutrition practices, impact household food consumption and child feeding. Previous efforts to engage communities in health and nutrition initiatives have highlighted the need for localised context-specific solutions.

Agago District was selected for the Rapid Nutrition Determinants Assessment (NDA) due to its persistent malnutrition rates and the need for a deeper understanding of the underlying causes of malnutrition. The findings are intended to support the districts transition from crisis response to resilience by empowering communities and strengthening local capacities for sustainable nutrition programming.

JUSTIFICATION

Acute malnutrition is a persistent challenge in Agago district, Northern Uganda, with rates varying between sub countries, often due to under reporting - Omiya Pacwa (1%), Lira Kota (3%), Adilang (10%) and Patongo sub-county (18%).[1] Micronutrient deficiencies though under reported as well are also prevalent, particularly among children under five and women of reproductive age. These alarming statistics highlight the critical need for targeted interventions to address the root causes of malnutrition and improve health outcomes in the district.

Traditional nutrition assessments, such as the Nutrition Causal Analysis (Link Nutrition Causal Analysis), while effective, are resource-intensive, time-consuming, and impractical for fragile and

[11] Agago District Health facility data,

resource-constrained contexts like Agago. The absence of timely, actionable data on the determinants of malnutrition hampers the ability of stakeholders to design effective, context-specific interventions. The seasonal nature of food insecurity and the dynamic socio-economic and environmental challenges in the region further complicate efforts to address malnutrition comprehensively.

The Rapid Nutrition Determinants Assessment (Rapid NDA) was developed to address the need for a streamlined, community-centered approach to understanding the drivers of malnutrition at the local level. Unlike the Link NCA[2], which is a comprehensive, mixed-methods causal analysis involving both qualitative and quantitative data collection and statistical validation, the Rapid NDA is a purely qualitative tool. It is designed to be a rapid, cost-effective, and participatory assessment that leverages community knowledge and engagement to surface context-specific determinants of malnutrition. While not intended to replace the depth and rigor of the Link NCA, the Rapid NDA offers a practical alternative for settings with limited resources or where timely insights are needed to inform programmatic decision-making. By directly involving community members in the analysis, the methodology ensures that findings are relevant, grounded in lived realities, and capable of informing locally appropriate and sustainable interventions.

This initiative aligns with broader programmatic and policy goals, including GOAL Uganda's Maternal Newborn and Child Health and Nutrition Programme (2023–27), Uganda's National Nutrition Action Plan, and global commitments such as the Sustainable Development Goals (SDG 2: Zero Hunger and SDG 3: Good Health and Well-Being). The Rapid NDA contributes to these goals by addressing the immediate and systemic causes of malnutrition, fostering resilience, and empowering communities to transition from crisis response to long-term solutions.

The findings from this assessment have the potential to drive systemic change, enhance resource allocation, and strengthen local capacities for nutrition programming. Furthermore, the scalability of the Rapid NDA methodology ensures its relevance and applicability in other resource-constrained and fragile settings. This pilot not only informs adaptive management in Agago but also contributes to the development of a globally applicable toolkit for addressing malnutrition effectively and sustainably.

STUDY OBJECTIVES

GLOBAL OBJECTIVE

The main objective of this qualitative study was to understand nutrition determinants of malnutrition in four selected sub-counties of Agago to improve the relevance and efficiency of malnutrition programming in country.

SPECIFIC OBJECTIVES

The study will specifically aim to:

- To identify key determinants of wasting among the population in the study area;
- To understand how determinants of wasting among the population in the study area interact with each other in order to determine which causal pathways are likely to explain most cases of wasting in the study area;

[2] Experiences implementing a rapid nutrition determinants assessment in Nepal | ENN

- To understand how determinants of wasting among the population in the study area have evolved over time and/or evolve in different seasons;
- To identify vulnerable groups of wasting among the population in the study area.

METHODOLOGY

The Rapid NDA is a qualitative study that draws from the learnings of the Link NCA , a mixed method for analysing the multi-causality of under-nutrition as a starting point for improving the relevance and effectiveness of multi-sectoral nutrition security programming in a given context. [3] The Rapid Nutrition Determinants Assessment (Rapid NDA) is designed to identify and understand the context-specific determinants of undernutrition, particularly among children under five. Unlike the Link NCA, which employs a rigorous mixed-method approach combining statistical analysis and large-scale quantitative data with qualitative inquiry to establish causal links, the Rapid NDA does not seek to produce statistically representative or generalisable findings. Instead, it provides an in-depth, narrative-based understanding of how different factors interact to influence nutritional outcomes within a defined local context.

The Rapid NDA is intentionally lightweight and rapid, tailored for small-scale settings such as sub-counties or municipalities where resources are limited or a timely understanding of the situation is required. It is especially suitable for emergency contexts or early programming phases where more comprehensive assessments like Link NCA are not feasible. The methodology centers on community consultations through semi-structured interviews, focus group discussions, participatory visual tools (e.g., seasonal calendars, historical timelines, 1000-day child timelines), and contextualized flashcards, allowing participants to explore and prioritize the key risk factors contributing to undernutrition.

The data collection typically spans one week in a representative village, involving 9 focus group discussions and 11 key informant interviews, complemented by field observations. Findings are triangulated and validated through a community validation session, where the contextualized causal pathway of malnutrition is reviewed, determinants are categorised (major, important, or minor), and feasible solutions are proposed by participants. These processes ensure that findings are locally grounded, immediately relevant, and actionable for programming.

Though the Rapid NDA does not produce quantifiable prevalence estimates or causality, its strength lies in capturing the lived experiences of caregivers and community stakeholders, highlighting interrelated determinants across sectors including Health, Nutrition, Gender, WASH, Mental Health and Care Practices, and Food Security and Livelihoods. When interpreted alongside other data sources, the Rapid NDA becomes a powerful tool for informing multisectoral nutrition strategies, revising behavior change curricula, and tailoring interventions to address real and perceived drivers of malnutrition.

[3] For more information about the methodology, please consult www.linknca.org.

QUALITATIVE DATA COLLECTION

Duration

The qualitative data collection lasted 8 days – 8 days for each location simultaneously - from the 15th of October till 23rd of October 2024. The qualitative survey team spent approximately 8 consecutive days in each selected community. The length of semi-structured interviews or focus group discussions were limited to 1h or 1h15min maximum.

Sampling framework

The aim of the qualitative sampling framework was not to be statistically representative of the target population, but rather to be qualitatively representative of different segments of the population living in the study area, reaching a saturation point.

Table 1: *Sampling framework for qualitative data collection, Adilang, Omiya Pacwa, Patongo and Lira-Kato*

Sub-county	Parish	Village	Characteristics
Omiya Pacwa	Laita	Abilnino	Majority are subsistence farmers, some are pastoralists and rely on agriculture as well as livestock for their livelihoods. Many households live below the poverty line, education attainment especially among the women is low. Majority of the people are engaged in casual labor. Malnutrition is significant, under reported and widespread affecting both under five and women most acutely. Reliance on rain fed agriculture renders the community vulnerable to climate vulnerability
Patongo	Patongo Town council	Oporoth Central	While predominantly rural, Patongo has semi-urban characteristics, it serves as a local trading hub. Many of the residents rely on subsistence farming and engage in small-scale trading. Residents have better access to health services due to health facility and NGO presence, however, service quality remains limited. The subcounty still faces high poverty rates and high prevalence of malnutrition.

Lira-Kato	Ogul	Ogul Central	Majority of the residents rely on subsistence farming and livestock rearing, the terrain is rocky and this contributes to the low population density compared to the other sub-counties. Characterised by high poverty rates, micro-nutrient deficiencies and chronic malnutrition are prevalent and more pronounced in Lira-Kato. Access to health care and nutritious crops specifically vegetables is limited due to the rocky terrain. Dependence on rain-fed agriculture makes the community highly vulnerable to climate variability. Including droughts and erratic rainfall.
Adilang	Alop	Alop	Much like the rest of northern Uganda, residents rely on subsistence farming and livestock rearing, most households are extended with higher dependency ratios compared to other sub-counties due to large number of children. Adilang faces significant malnutrition challenges including micro-nutrient deficiencies. Most households also live below the poverty line with limited cash income and reliance on bartering or small-scale trading. Access to health services is limited.

At village level, the following categories of participants were selected to take part in focus group discussions and semi-structured interviews:

a. Community leaders (village leaders, religious leaders and other key community figures);
b. Traditional healers and birth attendants.
c. Health centre staff (doctors, nurses, community health workers);
d. Representatives of community-based organisations.
e. Mothers and fathers of children under 5 years of age, including parents of malnourished children;
f. Grandparents of children under 5 years of age.

Sample size

The data collection team engaged 45 focus group discussions in total with 10 participants per FGD having a total of 450 participants. In addition, the team completed 48 semi-structured interviews with key informants, including parents of malnourished children. Semi-structured interviews included case studies of malnourished children. The total number of focus group discussions and semi-structured interviews completed were 45 FGD and 48 Key informant interviews.

Subcounty	Village	Group discussions / Participatory exercises	Key informant interviews
Omiya Pacwa	Abilnino	9 (90 participants)	12
Lira-kato	Ogul Central	12 (120 Participants)	12
Patongo	Oporoth central	12 (120 participants)	12
Adilang	Alop	12 (120 participants)	12
TOTAL		**45 (450 participants)**	**48**

Table 2: *Estimated sample size for the qualitative study, 45 FGDs and 48 SII*

Data collection tools

The qualitative research team used semi-structured interviews and focus group discussions as the two main methods of data collection. The qualitative study team used a series of visual aids with an objective to assist participants to consider a variety of determinants of undernutrition in the study areas and categorised them in terms of importance. The qualitative study team also used a 1000-day timeline, a participatory tool designed to understand and compare practices during the first 1000 days of child's life alongside a historical and seasonal calendar.

The semi-structured interviews and focus group discussions were guided by interview guides covering main determinants of undernutrition.

Team composition and training

Qualitative data collection was led by GOAL Uganda team members with the help of two research assistants each (total 8), and a community mobiliser, often a community health worker, recruited locally in each village. The main role of community mobilisers was to ensure a fair selection of participants for each focus group discussion and to support the qualitative data collection team, as required.

Training

The research assistants were trained for 3 days on comprehensive qualitative data collection. This was done to equip them with the necessary knowledge, skills and tools to effectively conduct the assessment.

Data management and analysis

Qualitative data was recorded manually in a notebook and reproduced electronically at the end of each data collection period in a sampled location. The data was compiled in an Excel spreadsheet organised in thematic areas to allow for an efficient analysis. All views were analysed using qualitative content analysis methods.

The qualitative data collection team debriefed daily on the content of their inquiries with the aim to consolidate the learnings captured during the day and to adapt next day's approach accordingly.

Ethical considerations

The following provisions were complied with during the qualitative study in Omiya pacwa, Lira Kato, Patongo and Adilang.

a. All relevant authorities were duly informed about the study and expressed their agreement verbally with the study implementation via support letters addressed and delivered to their offices.
b. The municipality and village leaders were informed of the selection of their community for the purpose of a qualitative study at least two days in advance. During the initial meeting they received a detailed planning of research activities in the selected village in order to facilitate the participant selection process and to ensure the participants' availability at stated times. The detailed planning was subject to change, if required by community members. The qualitative data collection team accommodated their routine as much as possible, taking into account time constraints of the study.
c. The participants were selected equitably and their informed consent was sought to ensure that they participate in the study voluntarily.
d. The participants were able to participate in more than one focus group discussion, if they chose to, but considering their other engagements, community leaders were to spread the selection of participants across the whole village.
e. The anonymity of participants was ensured during all stages of the study (data collection, data analysis and data storage). Their names were not collected nor shared.
f. The data collection team organised a community feedback session during the last day of the data collection in order to allow communities to review their findings, categorise identified determinants and prioritise corrective actions.
g. The data collection team followed recommendations of the Global Nutrition Cluster's *Interim guidance on restarting population level surveys and household data collection in humanitarian situations during COVID-19 pandemic*.
h. All children aged 6 – 59 months who were identified as suffering from severe or moderate acute malnutrition were referred to the nearest health facility for appropriate treatment.

Study limitations

- The information gathered during the assessment presented findings that were only specific to the selected areas and were not applicable to other districts or regions.
- The information collected during the assessment does not fully represent the broader context of the district of Agago, it only represents the sub-county and village from which the data was collected.

Main challenges

- One of the main challenges was the newness of the Rapid NDA methodology to all team members. As the team was learning to apply the methodology while conducting the assessment, certain aspects of the process like developing the causal pathways for malnutrition and synthesizing large volumes of collected data, posed difficulties. The team had to simultaneously navigate tasks while refining their understanding of the new tools. To address this technical support was provided by the NDWG.[4] This ensured the team could gradually build their confidence and capacity to improve the implementation process.
- The actual process of developing the causal pathways presented a challenge. The creation of complex multilayered pathways to map the various determinants and their interactions was a struggle for the team, in the beginning the team developed over simplified drafts that did not accurately reflect the interactions of determinants. The NDWG provided technical support to review and ensure accuracy of the pathways.
- Logistical challenges of accessing remote areas in Agago District also complicated the implementation of the assessment. Poor road infrastructure, especially areas like Omiya Pacwa and Lira Kato, made travel difficult and led to delays in scheduled interviewed.

[4] Nutrition Determinants Working Group (NDWG), a sub-working group of the Nutrition Information Systems working group in the Global Nutrition Cluster

FINDINGS

OMIYA PACWA

WASTING

Community perceptions of wasting

Community members in Omiya Pacwa perceive wasting, particularly in children, as an urgent and life-threatening condition. It is not merely regarded as a sign of undernutrition but as a critical indicator of food insecurity, persistent shortages, and overall ill-health. The community views wasting as a visible warning that a household is struggling to meet its nutritional needs, and it is often associated with rapid weight loss, weakened immunity, and increased vulnerability to disease. Respondents emphasized that children suffering from wasting are at a heightened risk of severe illness, which can further deteriorate their health and survival chances.

Wasting is understood to be seasonal, with a notable increase during lean periods (April to June) when food availability is drastically reduced. In Omiya Pacwa, limited food variety, inadequate birth spacing, and weak coping mechanisms contribute significantly to the worsening of nutritional deficits that lead to wasting. Community members highlighted that families with low income and minimal support structures are the most affected, as they struggle to provide sufficient and nutritious food. The lack of diversified diets, coupled with recurrent infections, further exacerbates the condition, making it difficult for affected children to recover.

Beyond its physical manifestations, wasting carries social and economic implications within the community. It is often interpreted as a sign that a household is unable to take care of itself, signifying low socioeconomic status and the need for external assistance. A wasted child may be perceived as coming from a home that has been abandoned or lacks adequate parental care. Some respondents associated the condition with premature birth, while others mentioned that a person with a swollen body is also seen as suffering from wasting, indicating the community's broader understanding of malnutrition-related illnesses. However, despite the generally good understanding of malnutrition, some community members still believe that witchcraft causes the physical signs and symptoms associated with malnutrition.

The table below outlines all the terms used by the community to refer to wasting.

WASTING	
Neero	Its interpreted as someone who comes from a household that is not able to take care of themselves. It means that the status of the household is low
Lagooro	Meaning someone who needs support
Abwogi	Meaning Pre-Mature Child
Te gang	Meaning someone coming from an abandoned home
Lakoda	Meaning someone with a Swollen body

Table 3: *List of local terms used to describe wasting*

A summary of perceived causes, vulnerability, prevention and treatment of wasting is presented in table 4 below.

Category	Details
Perceived Causes	• Inadequate breastfeeding. • Lack of complementary feeding more especially low-nutrient foods. • Illnesses such as diarrhea and respiratory infections. • Environmental factors such as poor sanitation and limited access to clean water. Limited decision-making power of mothers. Poor maternal health.
Vulnerability	• Children under 5, especially under 2 years • Children of malnourished mothers or those with poor health. • Deeply remote villages with limited access to healthcare and markets. • Homes with poor sanitation and hygiene practices. • Homes with low socio-economic status and food insecurity.
Prevention	• Promote exclusive breastfeeding (first 6 months). • Ensure appropriate complementary feeding (introduce nutrient-rich foods at 6 months). • Improve access to clean water and sanitation. • Educate on hygiene and infection prevention. • Support food security and improve access to diverse, nutritious foods. • Empower women through social support networks and economic opportunities.
Treatment	• Nutritional rehabilitation (RUTF) • Treating underlying infections (ORS, antibiotics, hydration). • Monitoring growth and providing follow-up care. • Improving maternal and child health services and ensuring access to healthcare.

Table 4: *Summary of community perceptions of causes and treatment of wasting in Omiya Pacwa*

Community perceptions of causal mechanisms of wasting

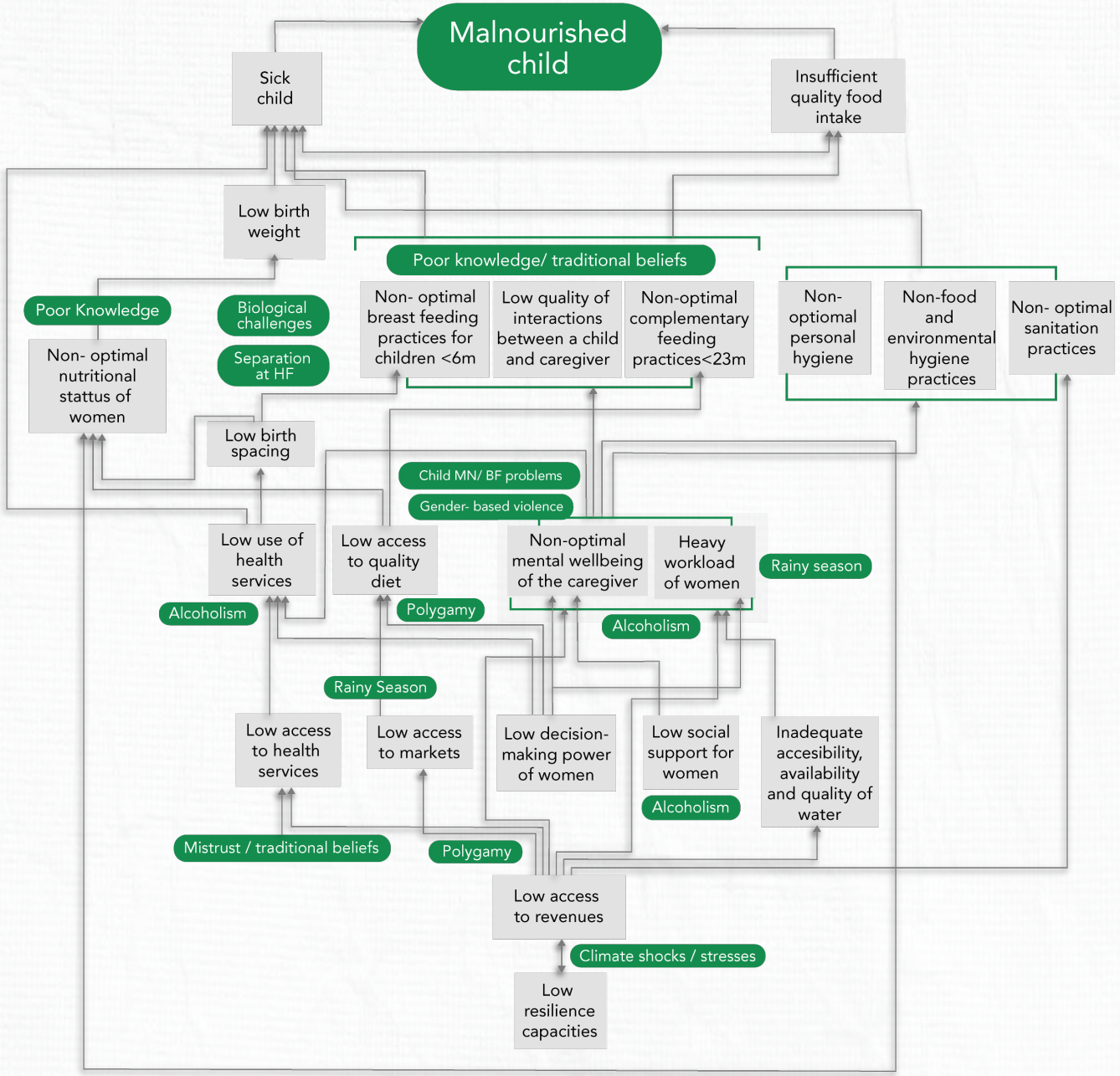
Determinants A-B were identified as major drivers of malnutrition by the community, while D-H were identified as important determinants in the causal pathway described below.

	DETERMINANT	SUMMARY POINTS	LINKAGES W/ OTHER DETERMINANTS
A	**Low access to a quality diet**	• Foods like rice only eaten during the festive season • Low production of food in the home for the many children • During the farming season, households will usually eat once a day	• Low access to markets • Low access to revenues • Low decision-making power • Non-optimal complementary feeding practices • Non-optimal nutritional status of women
B	**Low decision-making power of women**	• Women make decisions on what to eat however if it involves meat, the men are requested for permission to cut animals • Women have to request men for permission to sell off the harvest even if it's the women that farmed. Women are not allowed to sell animals without permission from the men • Women have to seek permission to attend health services • During pregnancy, the mother in law kept all the money made from the casual labour and she had to seek permission if she wanted to spend the money Women are not allowed to speak out about their spouses, even when there is no support that they provide. Husbands demand to have control over the money that the wives make. If the woman does not allow the man to control the money made, it erupts in violence	• Non-optimal wellbeing of caregivers • Heavy workload of women • No access to markets • Low access to quality diet • Low use of health services

C	**Heavy workload of women**	• Women do all the chores at home, even after coming back from the garden while the men do not support • Men after coming back from the garden will proceed to sit with their peers • Women are also expected to give birth to children • Mothers spend a lot of time in the garden, during the farming season and do not breast feed their children all the time • Women will prepare one meal for the household during the farming season • Even during pregnancy at 8 months a mother was going to the garden. In the past there was only one season for farming when people fully engage in farm work but currently the climate has changed unreliably impacting workload	• Low decision-making power of women • Low access to revenues • Inadequate accessibility, availability, and quality of water • Non-optimal breast feeding practices • Low-mother to child interactions • Non-optimal complementary feeding practices • Low nutrition status of women • Non-optimal personal hygiene
D	**Non-optimal mental wellbeing of the caregiver**	• Mother worried about her child who is malnourished • Husband not providing during pregnancy leading to stress for the mother	• Low decision-making power Non-optimal breastfeeding practices for children <6m • Low quality of interactions between a child and caregiver • Non-optimal complementary feeding practices <23m • Non-optimal personal hygiene • Non-optimal nutritional status of women • Heavy workload • Low access to revenues

E	**Low social support of women**	• Women have saving groups • Women who drink alcohol are not supported in the community • Low social support leads to emotional distress • Women support their fellow women to the hospital when they are ill	• Non-optimal mental wellbeing of the caregiver
F	**Low birth-spacing**	• Husbands do not allow their wives to use contraceptives and require them to have sex	• Low use of health services • Low decision making power of women • Non-optimal nutritional status of women
G	**Low access to revenues**	• Mother not being able to get money for her daily needs during pregancy, has to conduct casaul labour even during preg. • Main source of income is farming • Elephants destroy crops which are the main source of income	• Low reliance capacities • Low access to a quality diet • Low access to markets • Inadequate accessibility, availability and quality of water • Non-optimal sanitation practices • Heavy workload

Figure 1: *Omiya Pacwa Community perceptions of causal mechanisms of wasting*



Seasonal & historical variations

Community members in Omiya Pacwa recognize the strong link between seasonal variations and fluctuations in wasting rates, emphasizing the importance of the agricultural cycle in shaping food security and child nutrition. The seasonal calendar provides a clear pattern of how food availability, household income, and caregiving practices shift throughout the year, influencing the prevalence of wasting. These variations create cycles of relative food abundance and scarcity, which in turn affect nutritional outcomes, particularly among young children.

During the harvest season, which typically runs from November to March, the community experiences a period of relative food security. Low rainfall during these months coincides with bountiful harvests, ensuring an abundance of food varieties and increased dietary diversity. Households have access to nutritious foods, and incomes are relatively stable as families can sell surplus crops in local markets. This period is associated with lower levels of wasting, as children benefit from better feeding practices, improved household food stocks, and increased parental ability to provide adequate care. With fewer economic constraints, families are also better positioned to seek healthcare services when needed, further contributing to improved child health and nutrition.

However, this period of food security is temporary, as conditions shift dramatically during the planting season from May to August. During these months, the community faces numerous challenges that contribute to increased rates of wasting. As the food from the previous harvest diminishes, markets experience a shortage of supplies, leading to reduced food availability and limited dietary options. Household incomes from surplus crops also decline, as there are fewer food items available for sale, making it difficult for families to afford a balanced diet. This economic strain often forces families to rely on less nutritious foods, increasing the risk of malnutrition among children.

The demands of agricultural labor during the planting season further exacerbate the situation. Parents and caregivers are heavily engaged in farming activities, leaving them with less time for proper child care and feeding. With reduced supervision, young children may receive inadequate meals or be fed at irregular intervals, worsening their nutritional status. Additionally, the increased workload on mothers, combined with limited food intake, can negatively affect breastfeeding practices, leading to further nutritional deficits in infants and young children.

This seasonal pattern highlights the community's ongoing vulnerability to food insecurity and its direct impact on child health. While the harvest season provides temporary relief, the planting season brings heightened risks, reinforcing the cycle of malnutrition and food scarcity.

HEALTH AND NUTRITION

Low access to health services

Access to health facilities in Omiya Pacwa is limited, with multiple economic, social, and environmental barriers preventing timely and adequate healthcare for many community members. Families often struggle to take their children to health centers when they fall sick, primarily due to financial constraints. The lack of financial resources forces many parents to either delay seeking treatment or abandon referrals altogether, leading to worsening health conditions among children.

Polygamous families face additional challenges in accessing healthcare. In cases where a man has multiple wives and many children, the financial burden is overwhelming. Additionally,

community members highlighted that stepmothers in polygamous households often prioritize their biological children over others, further limiting some children's access to care. This selective caregiving practice results in neglect for certain children, particularly those from abandoned or less favored mothers.

Frequent illnesses among children also strain household resources, making it difficult for families to consistently afford treatment. A participant shared the experience of her one-year-old baby, who suffers from persistent malaria, diarrhea, and dehydration. Despite trusting the health center more than local herbal treatments, her child continues to relapse after periods of normalcy. This recurring pattern of illness increases the financial burden on families, who struggle to afford repeated visits to health facilities. The inability to access quality follow-up care and preventive interventions leaves children vulnerable to severe malnutrition and chronic health conditions.

Beyond economic and social barriers, vulnerable groups such as the elderly, individuals with disabilities, and low-income earners also face systemic challenges in accessing healthcare. Cultural norms and traditional beliefs sometimes discourage individuals from seeking medical care, further delaying diagnosis and treatment. For example, one mother, had not yet taken her baby to the hospital, as she is required to undergo a four-day cultural cleansing ritual, which she believes will improve her child's health. These disparities in healthcare access not only contribute to high rates of malnutrition but also lead to a cycle of worsening health conditions within the community.

Low use of health services

In Omiya Pacwa, the underuse of health services is a significant factor contributing to the worsening of malnutrition and overall poor health outcomes, particularly among children. One of the key concerns raised by community members is the high prevalence of alcohol consumption among women and mothers. It was reported that many women spend a significant portion of their time drinking, leading to intoxication and neglect of their children's well-being. This behavior often results in mothers failing to notice when their children fall ill, delaying necessary medical interventions. As a result, children suffer prolonged illnesses, hunger, and, in many cases, severe malnutrition. The impact of this neglect is particularly alarming, as early detection and treatment of childhood illnesses are crucial in preventing complications that can lead to life-threatening conditions. Many mothers also do not complete the recommended eight ANC visits, which means that crucial opportunities for early intervention and nutritional support are missed. Many women in the community require their husbands' approval before visiting a health facility, leading to delays or inability to utilise services. Mistrust in modern healthcare services also discourages families from seeking medical assistance. The farming season presents an additional challenge, as fewer people seek healthcare due to their overwhelming workload.

Traditional healing practices also play a significant role in limiting the use of formal health services. Many families first seek treatment from herbalists or traditional healers before considering medical facilities. In cases of severe malnutrition, when a child fails to respond to traditional treatments, some families interpret the condition as being caused by supernatural forces or curses. In extreme cases, community members reported that rituals are performed, and some children are even abandoned when they are perceived to be beyond help. This deep-rooted belief system further delays proper medical interventions, increasing the risk of mortality among severely malnourished children. This unequal access to care exacerbates health disparities among children, leaving some more vulnerable to malnutrition and disease.

Low birth-spacing

In Omiya Pacwa, low birth spacing is a another factor contributing to malnutrition and poor health outcomes for both mothers and children. Women in the community face significant barriers in accessing family planning services, as many husbands exert control over reproductive decisions. The burden of caring for many children also affects maternal caregiving capacity, as mothers with frequent pregnancies and young children to care for have less time and energy to ensure proper feeding and hygiene practices.

Some community members expressed concerns about family planning methods, with claims that contraceptives introduced by organizations like Marie Stopes have led to an increase in birth defects. While these claims are not medically substantiated, the perception has created resistance toward modern reproductive health services, influencing women's decisions to avoid health facilities. This reluctance to seek care not only affects family planning services but also extends to maternal and child healthcare, resulting in more cases of unplanned pregnancies, maternal complications, and increased risks of malnutrition in children due to poor birth spacing.

Low birth weight

In Omiya Pacwa, low birth weight is a factor contributing to malnutrition and poor health outcomes in children. Many mothers report that heavy workloads during pregnancy force them into premature deliveries, resulting in babies born with very low weight. This premature birth not only increases the risk of malnutrition in the immediate postnatal period but also predisposes children to long-term nutritional challenges. Infants born with low birth weight often have weaker immune systems, making them more susceptible to infections, growth delays, and developmental setbacks.

Poor maternal nutrition is a major underlying cause of low birth weight in the community. This nutritional deficiency affects fetal growth, leading to babies being born underweight and vulnerable to further malnutrition. Limited access and low utilization of ANC services exacerbate this issue. Without proper antenatal care, complications such as poor fetal growth, maternal malnutrition, and the risk of preterm birth go undetected, making it difficult to provide timely interventions. One mother, shared her experience of giving birth at 10 months to a child weighing only 2 kilograms. Her baby's low weight at birth placed them at immediate risk of malnutrition, requiring intensive nutritional care and monitoring.

Non-optimal nutritional status of women

Many women suffer from non-optimal nutritional status, including pregnant and lactating women. Many expectant mothers struggle with inadequate diets due to food insecurity, limited knowledge about proper prenatal nutrition, high workloads and stress. Micronutrient deficiencies are also common among mothers, particularly anaemia, which weakens their overall health. Low birth spacing and inadequate time for the mother to recover from birth also negatively impact maternal nutritional status.

MENTAL HEALTH AND CARE PRACTICES

Non-optimal mental well-being of the caregiver

Women in the community face numerous interrelated challenges that lead to chronic stress, anxiety, and depression, ultimately affecting their ability to provide adequate care for their children. The overwhelming workload placed on women, results in severe physical and mental exhaustion. Coupled with inadequate rest, poor nutrition, and economic struggles, these pressures make it difficult

for mothers to maintain their own health, let alone ensure proper nourishment and care for their children.

The mental health of caregivers is also severely impacted by family dynamics and gender-based violence (GBV). Many women in Omiya Pacwa experience domestic abuse, often at the hands of spouses who are heavy alcohol consumers. One mother shared how her husband frequently drinks, neglecting his responsibility to provide for the family, leaving her and their five children in a constant state of financial struggle. She described how her children wander away from home in search of food, and the distress of overthinking about their future has caused her to lose weight alongside her children. Even in cases where husbands are not physically violent, their silent neglect and failure to contribute to household needs create deep emotional distress for their wives, leading to deteriorating mental and physical health.

For many mothers, the stress of dealing with financial insecurity, food shortages, and their children's health issues creates profound emotional burdens. A mother in the community, expressed deep sadness and distress when seeing other children playing healthily while her own child suffered from malnutrition. The emotional pain of witnessing her child's poor health and knowing she lacks the resources to improve the situation has led to persistent psychological suffering. Similarly, another mother, who struggled to breastfeed described how she noticed that while other babies were active and waking up on their own, her baby remained lethargic unless she physically woke them up. Her child's lack of growth and persistent health issues were a source of emotional distress, making her feel isolated and helpless.

Pregnancy-related stress also significantly affects maternal mental well-being. Many mothers report experiencing high levels of anxiety during pregnancy due to health concerns, lack of financial support, and family pressures. One mother recalled how she was deeply depressed throughout her pregnancy because her husband and mother-in-law failed to provide essential necessities. The financial burden of preparing for delivery weighed heavily on her, leaving her feeling isolated and unsupported. Another mother recounted how she was diagnosed with hypertension during pregnancy but did not fully understand what it meant for her own health and that of her unborn child. When her child was born with complications and placed on oxygen, her stress levels intensified, further affecting her ability to care for herself and her baby.

The psychological distress experienced by caregivers has a direct impact on child nutrition and well-being. When mothers are overwhelmed with stress, depression, and exhaustion, they may struggle to engage in responsive feeding, maintain proper hygiene practices, and seek timely medical attention for their children. The combination of maternal stress, poor nutrition, and limited household support creates a vicious cycle that perpetuates malnutrition across generations.

Non-optimal breastfeeding practices

Exclusive breastfeeding for the first six months is not widely practised, as many mothers practice mixed feeding or stop breastfeeding before two years of age due to low birth spacing.

One major factor affecting breastfeeding practices is maternal stress and poor mental well-being. Some mothers report that when they are stressed or in a bad mood, they find it difficult to breastfeed their children, while challenges with breastfeeding can also contribute to stress and anxiety. One mother recounted how, after a complicated delivery, her baby was born underweight and struggled to breastfeed. Despite her efforts, the baby refused to nurse, leading her to rely on cow's milk and later porridge. Unfortunately, this led to severe malnutrition, and the child has since been in and out of the hospitalwhich has also taken a toll on the mother's health.

Some mothers face biological challenges in breastfeeding, further complicating infant nutrition. One mother shared that after a normal delivery, her baby initially breastfed well for two weeks, but then her milk supply suddenly stopped. In desperation, she initiated the baby on Lato Milk and tried consuming local herbs to boost her breast milk production, but it remained ineffective. Without breast milk, the child failed to gain weight, appearing weaker than other children of the same age.

Hospitalization and medical complications at birth also disrupt breastfeeding patterns. Some mothers reported that their babies were placed in intensive care for months after delivery, preventing immediate breastfeeding initiation. One mother described how her baby was put on oxygen for three months, and during this period, she was unable to breastfeed. Instead, her family resorted to feeding the baby cow's milk in her absence. This early introduction of cow's milk and the delayed initiation of breastfeeding increased the child's risk of infections and malnutrition. In another case, a mother who was admitted after delivery was unable to breastfeed, and her child was instead given cow's milk by caregivers. Despite later attempts to establish breastfeeding, the baby struggled to latch properly, which affected their overall growth and development.

Cultural beliefs and traditional practices further impact breastfeeding behaviors. Some mothers believe that their breast milk is insufficient and supplement with porridge or cow's milk too early, increasing the risk of malnutrition and infections. In some cases, family members influence breastfeeding decisions, as seen in situations where mothers live with their in-laws. The consequences of non-optimal breastfeeding are evident in the high rates of wasting among infants in Omiya Pacwa. Babies who are not exclusively breastfed are more susceptible to infections, diarrhea, and poor growth, increasing their risk of severe malnutrition and hospitalization.

Non-optimal complementary feeding practices

One of the major issues affecting complementary feeding is the premature introduction of foods that are not suitable for infants. Some mothers resort to feeding their babies porridge or cow's milk before six months, believing that breast milk alone is insufficient. However, these foods often lack the essential nutrients needed for early growth and increase the risk of digestive issues and infections. One mother shared how she had to rely on giving her child porridge from birth because the baby never breastfed. Another mother introduced long-life milk at three months, which caused the baby's stomach to swell, indicating digestive distress. In another case, a child was given okra (Otigo) before six months, an early introduction of solid food that could lead to digestion problems and poor nutrient absorption.

Delayed introduction of complementary feeding is also a concern, as some children are not provided with solid foods until much later than recommended. One mother introduced porridge to her baby only at 10 months, nearly four months beyond the appropriate period for complementary feeding. This delay increases the risk of malnutrition, as infants miss the critical window for nutrient-rich feeding that supports rapid growth and brain development. Children introduced to solid foods too late often struggle with dietary deficiencies, making them more susceptible to wasting, stunting, and other forms of undernutrition.

The lack of food and variety impacts on mother's ability to follow optimal complementary feeding practices. One mother, diagnosed with eclampsia at 10 months of pregnancy, shared how she tries to feed her baby at least three times a day with meals and porridge but struggles to find diverse, nutrient-rich foods. Instead, she mostly prepares greens collected from her garden, as other nutritious options such as proteins, dairy, and fortified foods are often unavailable or unaffordable. This lack of dietary diversity deprives

children of essential micronutrients, leading to deficiencies that hinder proper growth and development.

Cultural beliefs and misinformation about infant feeding practices also influence dietary choices. Some caregivers eliminate certain foods based on personal observations rather than nutritional guidance. One mother, for example, completely removed okra from her baby's diet after noticing the child refused to eat it. While individual food preferences should be respected, the complete avoidance of certain nutrient-rich foods can lead to gaps in a child's diet, making it difficult for them to receive adequate vitamins and minerals needed for healthy development.

Low quality of interactions between a child and a caregiver

In Omiya Pacwa, the low quality of interactions between children and caregivers, particularly mothers, has a significant impact on nutrition status and developmental outcomes of children. Many mothers are burdened with multiple responsibilities, leaving them with little time to provide the necessary emotional and physical attention to their children. In many cases, caregivers, including mothers, rely on older siblings or other family members to care for young children while they engage in labor-intensive tasks. However, these alternative caregivers often lack the knowledge or patience required to ensure proper feeding and care. The lack of stimulation, responsive feeding, and affectionate caregiving during meals contributes to poor feeding habits, as children are often left to eat on their own or are fed without encouragement to consume enough food. This results in poor appetite, reduced food intake, and ultimately malnutrition, including stunting and underweight cases.

Maternal stress, malnutrition, and GBV further impair a mother's ability to engage positively with her child. When a mother is overburdened with stress she has limited patience and energy to interact meaningfully with her child. The case of one mother highlights another dimension of poor caregiver-child interaction. She shared that her baby is extremely attached to her and does not want to associate with other children or adults. The child cries excessively when separated from her, creating distress for both the mother and the child. However, as she is responsible for preparing meals and managing household chores, she has no choice but to separate from her child at times. This situation reflects the difficulties many mothers face in balancing childcare and household responsibilities.

The consequences of these challenges are significant. Poor interactions between caregivers and children during feeding times result in low food intake, affecting a child's growth and nutritional status. Children who do not receive adequate emotional support and engagement may develop a poor appetite, struggle with feeding difficulties, and fail to gain the necessary weight for healthy development. In the long run, this contributes to increased cases of underweight children, stunted growth, and vulnerability to illnesses.

FOOD SECURITY AND LIVELIHOODS

Low access to quality diet

Limited access to a quality diet is a also a factor contributing to wasting in Omiya Pacwa, as many households struggle to obtain diverse and nutrient-rich foods. The community relies heavily on staple foods such as cassava and maize, with little nutritional variety, with certain nutrient-rich foods, such as rice, being considered a luxury that is only consumed during special occasions like Christmas and Independence Day. The situation is further worsened by the lack of alternative food sources. Since many families rely on subsistence farming for their food supply, they face challenges when harvests fail due to unpredictable weather conditions, pests, or destruction by wildlife.

Seasonal food shortages during the rainy season further worsen dietary inadequacy. Families are forced to rely on whatever food is available, which is often nutritionally poor. Low food production in households, combined with large family sizes, results in insufficient food intake and monotonous diets that often lack protein, vitamins, and minerals, leading to high rates of wasting.

Low access to revenues

Low access to revenue is a major challenge in Omiya Pacwa, directly influencing food security, healthcare access, and overall nutrition. Many households in the community rely on subsistence farming and livestock as their primary sources of income. However, repeated destruction of farmland by elephants from Kidepo National Game Park has left families struggling to sustain their livelihoods. These elephants trample crops, destroy harvests, and leave households with little to no produce to sell or consume, pushing families deeper into economic distress. Without a reliable harvest, families are unable to generate income from surplus crops, limiting their ability to purchase diverse and nutritious foods, particularly protein-rich and fortified options, or afford essential services like healthcare.

In addition to wildlife threats, the community also faces persistent insecurity due to Karamojong raiders, who frequently attack and steal livestock. Livestock ownership is traditionally a key economic asset for many families, providing food, income, and financial security. However, with continued livestock raids, families are left with minimal means of generating revenue, further aggravating their financial instability. The loss of both agricultural produce and livestock means that families have few opportunities to earn money, making it difficult to meet their daily nutritional needs, pay for school fees, or seek medical treatment when needed. This financial hardship leads to widespread malnutrition, as families resort to consuming whatever food is available, often lacking essential nutrients needed for proper child development. Women in Omiya Pacwa attempt to cope with these economic challenges by engaging in small-scale income-generating activities such as local brewing, baking bread, and selling agricultural produce when possible. The consequences of financial instability are severe, especially for children. Without enough income, families cannot afford diverse and nutrient-rich foods, leading to high rates of malnutrition, stunted growth, and weakened immunity. Children from low-income households are also less likely to receive adequate healthcare, making them more vulnerable to diseases and infections that further deteriorate their nutritional status. The inability to afford school fees also limits future economic opportunities, perpetuating the cycle of poverty and malnutrition across generations.

Low access to markets

Low access to markets in Omiya Pacwa significantly impacts food security and nutrition, as many households struggle to obtain diverse and sufficient food supplies. The nearest standard market is located in Paimol, requiring significant transportation costs that are unaffordable for most families, particularly those with low incomes. Many households cannot afford the high transport fares, forcing them to rely on smaller, local markets that offer limited food options and poor variety. These local markets, however, are in poor condition, lacking proper infrastructure and storage facilities, which further affects the quality and availability of food.

Market access becomes even more challenging during the rainy season when poor road conditions make it nearly impossible for traders to transport fresh produce and other essential foodstuffs into the community. As a result, food shortages become common, and families are left with nutritionally inadequate diets, increasing cases of micronutrient deficiencies, stunting, and general malnutrition. Another challenge affecting food access is price fluctuations in the market. When food prices rise, families often struggle to afford basic food items.

Low resilience capacities

Many families have limited coping mechanisms when faced with crises, meaning they are often forced to reduce the diversity and size of meals or skip meals altogether, making them highly vulnerable to hunger and malnutrition. The absence of financial savings, poor access to credit, and dependence on unpredictable rainfall patterns further weaken resilience, making it difficult for families to withstand economic or environmental shocks. When disasters strike, families often have no choice but to resort to negative coping mechanisms, such as selling off essential assets or pulling children out of school to contribute to household labor. Many families rely on selling livestock, such as chickens and goats, to cover urgent expenses such as medical emergencies, burials, and last funeral rites. These strategies may provide temporary relief but ultimately worsen long-term food security and economic stability, keeping households trapped in cycles of poverty and malnutrition.

Households that do not engage in farming are at a significant disadvantage, as they lack direct access to food and have no agricultural products to sell in the market. Without alternative sources of income, these families are entirely dependent on food aid, casual labor, or support from relatives, all of which are unpredictable and unsustainable. One woman shared how, during her pregnancy, she had to work in extreme weather conditions alongside her elderly mother just to sustain themselves. Due to financial struggles, she took on casual labor even while pregnant to raise money for food and other necessities.

WATER, SANITATION & HYGIENE

Low accessibility, availability and quality of water

Limited access to safe and sufficient water is another major determinant of wasting in Omiya Pacwa, as inadequate water availability directly affects hygiene, food preparation, and overall health. The sub-county relies on only two functional boreholes out of the seven available, forcing the entire population to depend on these limited water points. With such a high demand for water, long queues, particularly during the dry season, make water collection a time-consuming and physically demanding task, especially for women and children. These long wait times not only increase exhaustion but also take away valuable time from other essential household responsibilities, such as food preparation and childcare.

The burden of water collection is disproportionately placed on women and girls, who must travel long distances to fetch water. The additional workload further reduces the time they can dedicate to feeding and caring for their children, leading to poor hygiene and non-optimal feeding practices. The situation is even more challenging for vulnerable groups, including the elderly, pregnant women, and people with disabilities, who struggle to access water due to physical limitations. These individuals often rely on neighbors or young children for assistance, but due to the overwhelming demand at boreholes, they frequently face neglect or must endure long waits with no special treatment.

Due to these accessibility challenges, many households resort to drawing water from unsafe sources such as open wells, streams, and ponds, where water quality is not guaranteed. The consumption of untreated water significantly increases the risk of waterborne diseases such as diarrhea, cholera, and typhoid, which weaken the immune system and contribute to malnutrition. Diarrheal diseases, in particular, lead to dehydration and nutrient loss, preventing

children from absorbing essential vitamins and minerals needed for growth. Without access to safe drinking water, the cycle of illness and malnutrition continues, exacerbating wasting and increasing child mortality rates.

Participants of Omiya Pacwa, highlighted the severity of the water crisis in her community, noting that of the seven boreholes available, only two are functional. These boreholes become overcrowded during the dry season, forcing people to wait long hours for their turn to fetch water. She also emphasized that people with disabilities and the elderly, who live alone, face extreme challenges in accessing water, as they are not given special treatment at the boreholes. These conditions make it difficult for the most vulnerable community members to maintain proper hygiene and health, increasing their susceptibility to infections and malnutrition.

Non-optimal sanitation practices

Poor sanitation practices in Omiya Pacwa remain a critical factor contributing to wasting, as inadequate waste and fecal disposal significantly increase the risk of disease and poor health outcomes. Many households lack access to proper latrines, with only a few available due to income constraints, negative attitudes, and limited awareness of the importance of sanitation. As a result, open defecation is still practiced in some areas, contaminating water sources and increasing the spread of diseases such as diarrhea, cholera, and intestinal infections, which further exacerbate malnutrition.

A significant challenge preventing the widespread use of latrines is the high cost of construction. Many community members live on rented land, which discourages them from investing in pit latrines. Others struggle financially, making it difficult to allocate resources for sanitation infrastructure, even among those willing to adopt better sanitation practices. One community member highlighted this issue, noting that despite growing awareness about the importance of latrines, many people simply cannot afford to build them, leaving them with no choice but to practice open defecation.

Without proper sanitation and hygiene, the community remains vulnerable to disease outbreaks, frequent illnesses, and poor nutrient absorption, all of which contribute to high rates of malnutrition. Addressing these challenges requires a comprehensive approach that prioritizes sanitation infrastructure, hygiene education, and affordable hygiene solutions.

Non-optimal personal hygiene practices

Several factors werer sighted that influenced hygiene challenges, including the overwhelming workload of women, social and cultural beliefs, and limited access to hygiene products such as soap and detergents. Many women in the community juggle multiple responsibilities, such as farming, household chores, and childcare, leaving them with little time to prioritize personal cleanliness. As a result, essential hygiene practices such as regular handwashing, bathing, and maintaining household cleanliness are often neglected, increasing the risk of infections that contribute to malnutrition.

A key challenge affecting hygiene practices is alcohol consumption among both men and women. Some mothers in the community engage in heavy drinking, which further worsens household hygiene management. Alcohol consumption impairs judgment and reduces the ability to maintain proper self-care and sanitation. When caregivers are intoxicated, they may neglect their own hygiene as well as that of their children, exposing them to infections that weaken their immune systems and impair nutrient absorption. Similarly, men who frequently drink at local bars often fail to maintain personal hygiene, which further contributes to the spread of infections within households.

Cultural beliefs and gender norms also play a significant role in shaping personal hygiene practices. In Omiya Pacwa, hygiene is largely perceived as a responsibility for women and girls, while men and boys are often exempt from maintaining strict cleanliness standards. Girls, for instance, are expected to uphold high hygiene standards because they spend more time in the kitchen and are responsible for food preparation. Cleanliness is also associated with a girl's future prospects, as community members believe that girls who maintain good hygiene are more likely to marry early and reflect a positive image of their family. In contrast, boys are often allowed to play outdoors, hunt birds in the bush, and neglect personal hygiene without consequence. This double standard leaves boys more exposed to infections and hygiene-related illnesses.

Another belief within the community further exacerbates poor hygiene, particularly during the farming season. Some farmers believe that staying completely dirty while sowing seeds increases the likelihood of a good harvest. This practice discourages hygiene maintenance during crucial agricultural periods, leaving many individuals susceptible to infections, skin diseases, and waterborne illnesses. When hygiene is compromised, food contamination becomes more likely, leading to increased cases of diarrhea, parasitic infections, and other illnesses that contribute to malnutrition.

Additionally, the burden of cleaning and maintaining children's hygiene is largely placed on women, further increasing their workload. Since men are not actively involved in maintaining household cleanliness, women struggle to keep up with hygiene responsibilities, especially in large families. Without support from men in ensuring hygiene for themselves and their children, many households continue to suffer from recurrent infections that hinder child growth and overall family well-being.

Non-optimal food and environmental hygiene practices

Poor food hygiene, such as improper washing of fruits and vegetables or the use of unsanitary utensils, increases the risk of foodborne illnesses that interfere with nutrient absorption, further contributing to malnutrition. Many households rely on unsafe water sources and have limited access to proper food storage facilities, making food contamination and spoilage common. This, in turn, exposes families, especially young children, to frequent cases of diarrhea, which depletes essential nutrients and weakens immunity. Environmental hygiene challenges exacerbate these issues. Open defecation, improper waste disposal, and a lack of clean cooking areas contribute to the spread of pathogens, increasing the prevalence of illnesses such as diarrhea, typhoid, and intestinal infections.

Women in the community face a heavy workload, leaving little time for proper food hygiene and sanitation. After returning from the garden, many women are exhausted and rushed to prepare meals for their hungry children. One woman explained that when she returns from the garden with her children, she often gives them fruits such as mangoes to eat while waiting for food, but in many cases, these fruits are not washed properly. In some households, children are given leftover food from the previous day using unwashed utensils, increasing their risk of consuming contaminated food.

Additionally, cooking and feeding utensils are often not cleaned properly. Many mothers reuse dirty utensils to prepare meals, particularly after a long day of farming, prioritizing speed over hygiene due to fatigue and limited access to clean water. Utensils used to serve leftovers in the morning are sometimes not washed before being used again for food preparation, further contributing to foodborne illnesses. Poor hygiene practices in food handling and preparation lead to recurrent infections in children, preventing them

from absorbing nutrients effectively and increasing the risk of stunting and wasting.

GENDER

Heavy workload of women

Women are responsible for a wide range of physically demanding tasks, including farming, household chores, cooking, child-rearing, and fetching water. These tasks consume a significant amount of time and energy, leaving women with little opportunity to rest, seek healthcare, or focus on personal hygiene. The chronic fatigue, stress, and poor mental health that result from this overwhelming workload impair women's ability to make sound nutritional decisions for themselves and their children, increasing the risk of malnutrition.

Women in the community describe their daily routines as exhausting and relentless. One woman explained that she wakes up early in the morning to go to the garden for heavy weeding, then returns home to wash utensils and cook meals. Meanwhile, her husband, after completing his farm work, goes straight to sit with his friends and returns home late at night, leaving all household responsibilities to her. Women bear the burden of managing all household chores alone, which is physically draining and leaves them little time to ensure proper feeding practices for their children.

The cultural expectations surrounding women's roles in marriage further exacerbate this issue. In Omiya Pacwa, when a woman is married, she is expected to give birth and work for her husband. The pressure to bear children, combined with the heavy workload, places a significant strain on women's health, making them more susceptible to malnutrition and pregnancy-related complications. Even during pregnancy, women are expected to continue working under extreme conditions. One woman recalled that when she was eight months pregnant, her mother still woke her up at 6 a.m. to go to the garden, where she spent six to seven hours before returning home to cook meals and perform other household duties. This relentless labor took a serious toll on her health, highlighting the lack of support that pregnant and lactating mothers receive.

The farming season presents an additional challenge, as fewer people seek healthcare due to their overwhelming workload. During peak farming periods, particularly between April and September, women spend long hours in the fields, often at the expense of their health and their children's nutrition. Many mothers are unable to breastfeed consistently due to their time-consuming agricultural activities. Additionally, because of the physical demands of farming, women often prepare only one meal a day for the household, with many eating only once themselves. This insufficient food intake leads to nutrient deficiencies, making them weaker and increasing their susceptibility to illness.

Participants in the community confirmed witnessing the extreme routines women go through. Most women are full-time farmers who depend entirely on their harvest, requiring them to spend most of their time in the gardens. The physical toll of this routine is immense, as they get very little rest. The combination of inadequate nutrition, lack of rest, and extreme workloads weakens their immune systems and contributes to high rates of maternal malnutrition. This, in turn, affects their children, as undernourished mothers are less likely to produce sufficient breast milk, and they struggle to provide adequate care and feeding for their infants.

Low decision-making power of women

The low decision-making power of women is a key underlying determinant of wasting in Omiya Pacwa, as it severely limits their ability to make critical choices regarding their own health, nutrition, and that of their families. In many households, men hold the majority

of decision-making authority, leaving women with little control over essential aspects such as food selection, resource allocation, and healthcare decisions. This gendered power imbalance restricts women from independently making choices that could improve household nutrition, exacerbating malnutrition, particularly among children and pregnant women.

One of the most pressing issues is the lack of autonomy women have over food-related decisions. While women are responsible for cooking and preparing daily meals, they must seek their husband's approval before slaughtering livestock such as chickens or goats for consumption. One woman explained that she has full control over deciding what to cook each day, but if the meal involves meat, her husband must grant permission before she can prepare it. Similarly, even though women are actively engaged in farming and harvesting crops, they are required to seek their husband's consent before selling any of the produce, limiting their ability to generate income or purchase more diverse and nutritious foods. This control over household food supply by men often results in poor dietary diversity, as decisions are not necessarily based on nutritional needs but rather on traditional norms and male authority.

Women's financial independence is also restricted, further weakening their ability to make health-related decisions. Many women reported that their spouses demand full control over the money they earn. Any hesitation or refusal to hand over their earnings often results in domestic conflict, including violence. Some women try to hide portions of their earnings to ensure they can buy food for their children, but the fear of household conflict makes this difficult. The control of household finances by men often results in prioritization of non-essential expenditures, such as alcohol, over food and healthcare, worsening the household's overall nutritional status.

Participants shared that even when women earned money from casual labor during pregnancy, their mothers-in-law controlled the funds. Whenever they needed money for personal or household needs, they had to request it, but their mothers-in-law would sometimes claim that the money was gone or had been used elsewhere without providing any explanation. Other participants shared that when their husbands were away, they were left in the care of therr mothers-in-law. However, instead of receiving support, they were sent to the garden to work, limiting the time and energy they could dedicate to breastfeeding their children.

Lack of decision-making power was also reported in relation to accessing healthcare, particularly family planning services. One mother expressed frustration over how spouses forbid them from using contraceptives while still demanding sexual relations, inevitably leading to frequent pregnancies. Health workers in the community have also observed that many women are hesitant to speak openly about their challenges, especially regarding their spouse's behavior. One health worker, noted that when interacting with mothers at the health centers, many of them were shy or reluctant to discuss sensitive matters related to their husbands. This fear and voicelessness suggest that women do not feel empowered to demand support from their spouses, even when they are not receiving adequate financial or nutritional assistance. As a result, many women suffer in silence, unable to advocate for better food security, healthcare, or improved living conditions for themselves and their children.

ashis lack of decision-making power directly contributes to malnutrition by preventing women from accessing and prioritizing nutritious food, delaying healthcare interventions, and limiting economic opportunities. When women are unable to make independent decisions about what to eat, when to seek medical care, or how to use household income, their ability to address nutritional deficiencies and prevent wasting is significantly reduced.

Low social support of women

This lack of social support for women left them struggling with both emotional and physical exhaustion, impacting their mental well-being, which directly affected their ability to make proper nutritional decisions or ensure adequate care for their families. The absence of strong social networks also hinderd women from accessing information on maternal and child nutrition, further exacerbating the risks of malnutrition in their households.

Social isolation is particularly severe for women, where there are fewer organized support groups or formal structures to assist them during difficult times. Many women felt alone in their struggles, especially when faced with financial hardships, pregnancy-related challenges, or health complications. The emotional distress caused by this isolation often led to neglect of their own well-being, as they prioritized household duties over their personal health.

Despite these challenges, some women in Omiya Pacwa have managed to create informal support systems to help one another. One such group is called AYELE, where women contribute savings through weekly deposits and can borrow money when needed, though with interest. These savings groups provide some financial relief, particularly during times of distress, such as illness or food shortages. Women also support each other by accompanying sick members to the hospital, a level of care that is often not extended by their spouses. However, while these groups serve as a critical safety net, they remain limited in their reach and resources, leaving many vulnerable women without consistent support.

Social support is also often affected by high alcohol consumption. On mother explained that she was mistreated by her mother-in-law, who is an alcoholic, and often found herself without food. At eight months pregnant, she would spend long hours working in the garden and only eat once a day in the evening. After giving birth, she was unable to go back to farming. Her mother-in-law, who does not cook when she is away, provided little support in ensuring food is available at home.

The situation is even worse for women who struggle with alcohol dependency themselves, as they are often marginalized within the community. Women who drink heavily are perceived as neglecting their household responsibilities, particularly cooking and childcare, leading to malnutrition among their children. As a result, these women receive little to no social support, further isolating them from access to resources and assistance. Without intervention, these women and their families continue to suffer from food insecurity and poor health outcomes.

LIRA KATO

WASTING

Community perceptions of wasting

A child who is wasting in Lira Kato is often described as having a thin, weak body, which is one of the most noticeable physical signs. This child appears smaller and weaker compared to peers, and these differences in size and strength are quickly observed by caregivers and the community. Children who are frequently ill, such as those suffering from conditions like malaria, fevers, diarrhea, and skin rashes, are also perceived as being at risk for or suffering from malnutrition. Frequent illnesses and a general state of weakness are viewed as key indicators that a child's body is not getting the necessary nutrients to grow and function properly.

The community believes that the main cause of these health differences is insufficient food. Caregivers who see their children suffer from such symptoms often note that their children are not getting enough nutrition. For example, one community member explained that a medical professional informed them that their child lacked sufficient food in the body. This insufficiency is linked to both physical weakness and weight loss, which manifest in the thin body and the child's lack of energy. The child's diminished strength and reluctance to eat are also key signs of poor nutrition compared to other children who have access to a sufficient amount of food.

The community also identifies the link between poor health and malnutrition. Children who experience frequent illnesses, such as malaria, often struggle with more serious health issues than those who are well-nourished. The general weakness and tendency to fall sick more often than other children who eat regularly are seen as clear indicators of malnutrition and wasting. In essence, the health of a child who is wasting is seen as a result of both inadequate food intake and the physical toll of frequent illness, which further weakens the body's resilience. Despite the generally good knowledge of the signs and system of malnutrition; some community members still believe that witchcraft causes the physical signs and systems associated with malnutrition rather than recognizing the underlying nutritional deficiencies.

The table below outlines all the terms used by the community to refer to wasting.

WASTING	
Neero	Its interpreted as someone who comes from a household that is not able to take care of themselves. It means that the status of the household is low
Lagooro	Someone who needs support
Abwogi	Pre-Mature Child
Te gang	Someon from an abandoned home
Lakoda	Someone with a Swollen body

A summary of perceived causes, vulnerability, prevention and treatment of wasting is presented in table 6 below.

WASTING	
Causes	• The child eats less food compared to other children who have a healthy appetite • Poverty • Reduced food intake • Frequent vomiting • Absence of family support for being taken to the hospital or healthcare facility • Sickness such as malaria
Vulnerability	• Malaria diagnosis • Casual labour • Insufficient food in the household • Financial instability • Domestic violence • Separation or divorce • Single mother handling all household responsibilities • Poor health, including frequent fevers, diarrhea, body weakness, and skin rashes • The child falls sick more often than other children • New mothers or pregnant women who often experience low appetite due to hormonal changes or physical discomfort, which can affect their nutritional intake and overall health • Women who lack money and makes it difficult for families to afford nutritious food, healthcare, and other essentials, which can significantly impact both maternal and child health, leading to poor nutrition and vulnerability to illness
Prevention	• Dark green vegetables • Food served three times a day • Initiation to breastfeeding was after 8 hrs • Give a child food like Beans with soup, fried potatoes
Treatment	• RUTF

Table 6: *Summary of community perceptions of causes and treatment of wasting in Lira Kato*

Community perceptions of causal mechanisms of wasting

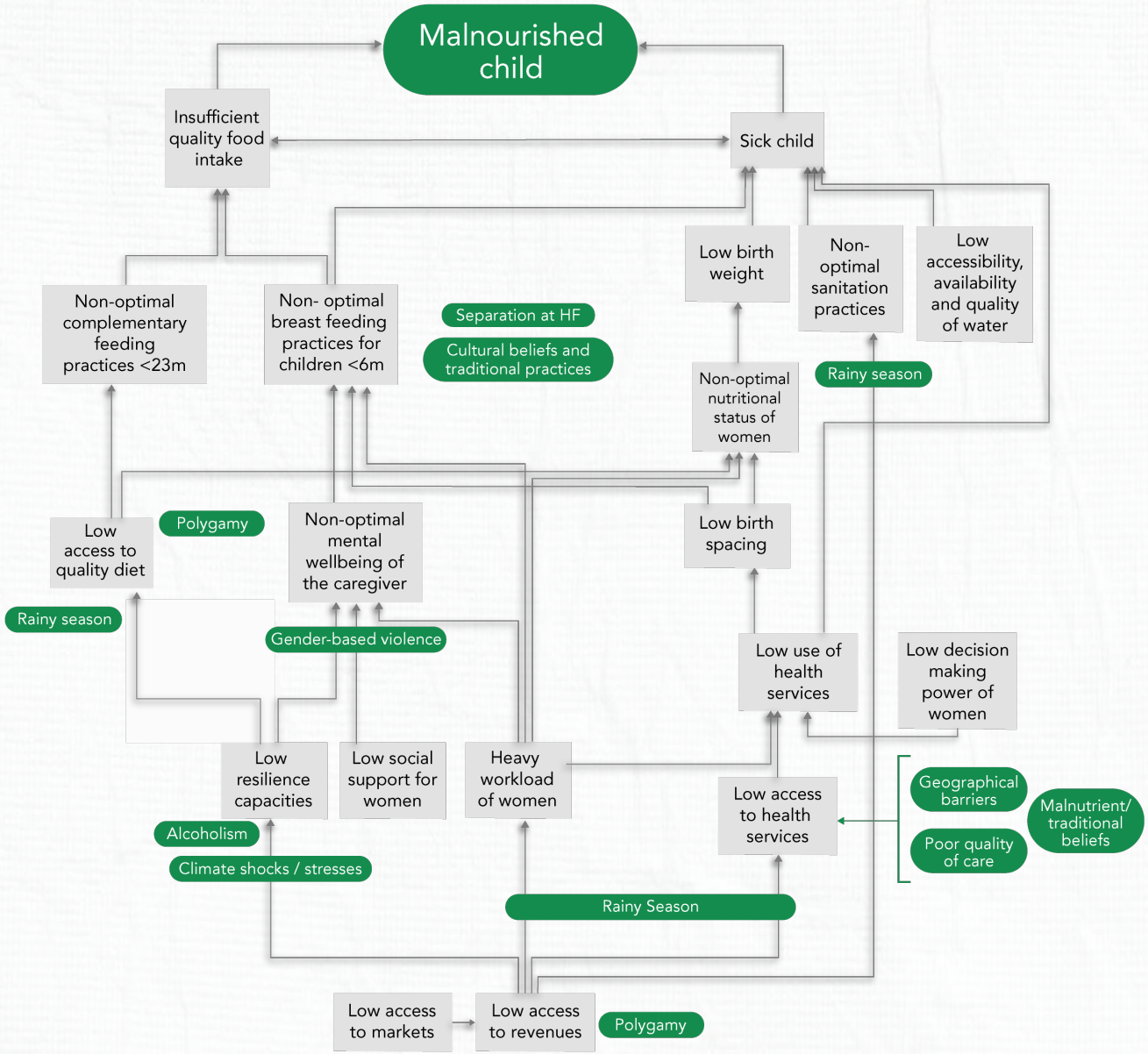
Determinants A-B were identified as major drivers of malnutrition by the community, while D-H were idneifed as important determinants in the causal pathway decribed below.

	DETERMINANT	SUMMARY POINTS	LINKAGES WITH OTHER DETERMINANTS
A	**Low access to revenues**	• The main sources of income in the community include the selling of firewood, offering labor, sale of farm produce, and the sale of animals. These sources vary over the course of the year, with lower income during the dry season. The community faces several challenges related to farming, including changes in weather patterns, crop destruction by wild animals such as elephants, prolonged dry spells, weed infestations, and a lack of improved seed varieties. Women generate income through small-scale businesses, such as selling alcohol, vegetables and crops like tomatoes, beans, onions etc offering casual labour in people's gardens, and working as hairdressers in salons.	• Low resilience capacities • Low access to markets • Heavy workload of women • Low access to health services
B	**Low access to health services**	• Quality of care: Lack of necessary medications at the local health facility; negative attitude of health workers. • Financial barriers: Transportation costs or medical fees. Polygamy in some families were some men have many wives and children which makes it challenging for all people to access health services. • Geographical barriers: Health services far away from some remote villages with a lack of transportation options.	• Low access to revenue • Low use of health services
C	**Low social support of women**	• Very few men accompany their wives to the health facility as they don't take health as a priority. Impact on poor maternal well-being.	• Non-optimal mental wellbeing of the caregiver

D	**Heavy workload of women**	• Heavy workload (often having to travel far to farms), balancing multiple tasks like garden work, household chores, and taking care of children. Workload is more during the farming season (planting in March-April, weeding in May-July) hence less access to health services while in the non-farming season, workload is less hence more access to health services.	• Low use of health services • Non-optimal mental wellbeing of the caregiver • Non-optimal breastfeeding practices for children • Non-optimal nutritional status of women • Low access to revenues
E	**Low birth-spacing**	• Husbands may not allow the use of family planning. Polygamy in some families were some men have many wives and children.	• Low use of health services • Non-optimal nutritional status of women • Non-optimal breastfeeding practices
F	**Non-optimal mental wellbeing of the caregiver**	• Participants reported persistent sadness and depression due to mistreatment (domestic violence) by their husband (driven by alcoholism) and lack of support from in-laws.	• Low social support • Heavy workload of women • Low resilience capacities

			• Non-optimal breastfeeding practices
G	**Low resilience capacities**	• People sell most food they grow while not keeping little for home consumption. During lean periods, meal frequency decreases, often limited to green vegetables. In contrast, post-harvest periods allow for a minimum of two meals per day with a greater variety of foods. Men were reported to sell farm produce and spend the money on alcohol without including women in decision-making.	• Low access revenues • Low access to quality diet • Non-optimal mental wellbeing of caregiver
H	**Low access to quality diet**	• The limited income of households makes it difficult to afford essential food items, eat fish once a year because I don't have the money to buy it, even though I wish I could eat it more often. People often eat the same type of food in all seasons. Food is usually got from households' garden and the market. Households often rely on kitchen gardens and farming to access food. Food scarcity, lack of money to buy additional food. During the rainy season (May-August), food availability is limited, unlike the post-harvest period when there is more food.	• Low resilience capacities • Non-optimal complimentary feeding practices <23m • Non-optimal nutritional status of women

Figure 2: *Community perceptions of causal mechanisms of wasting*



Seasonal & historical variations

In Lira Kato, seasonal changes and historical factors play a significant role in influencing the nutritional status of children and the broader health dynamics within the community. The intersection of agricultural activities, economic challenges, and social structures contributes to variations in malnutrition levels, particularly across the rainy and dry seasons. Historical factors have greatly affected household food security. Food has always come from subsistence farming, while 10-15 years ago food availability was relatively higher, the community reported a decline driven by a significant rise in polygamous households and rapid population growth.

One of the most significant seasonal impacts on malnutrition is the intensification of agricultural work during the rainy season, which occurs from March to July. During this period, farming activities, including planting, weeding, and tending to crops, become the community's primary focus. This increase in agricultural labor reduces the time available for essential caregiving activities, such as child monitoring, feeding, and ensuring proper nutrition. Women the challenge of balancing multiple tasks, including garden work, household chores, and childcare. This heavy workload not only leads to physical strain but also limits the time available to ensure children receive adequate nutrition, especially in the first six months of life when breastfeeding and immunization are critical.

In contrast, the dry season, which focuses on harvesting, provides a brief respite from the farming labor. The dry season also helps sustain the household, as food supplies from the harvest contribute to improved food security. However, even in the dry season, the focus shifts towards vegetable farming (e.g., growing vegetables like "boo" and "Malakwang"), and this continues to put pressure on household decision-making and resources, particularly for the most vulnerable populations, such as young children.

HEALTH AND NUTRITION

Low access to health services

One of the most pressing issues was the lack of necessary medications at local health facilities, which compromised the quality of care available to residents. The shortage of essential medicines left patients without the treatment they needed, exacerbating health problems, especially for vulnerable populations like children suffering from malnutrition and frequent illnesses. Additionally, there was reports of negative attitude among health workers, which further detered community members from seeking care. This negative interaction created a sense of distrust and dissatisfaction with the health services provided, making people less likely to visit health facilities even when they were in need of treatment. The combination of poor quality care and the unavailability of essential medications led to reduced confidence in local healthcare systems.

Financial barriers also played a major role in limiting access to health services. Many families shared that they struggled with transportation costs or the fees associated with seeking care at both public and private health facilities. For some, the cost of travel to the nearest health center or clinic was prohibitive, especially when resources were scarce. Moreover, families often faced difficulties in affording medical fees, leading to delays in seeking treatment or opting for home remedies, which worsened health conditions.

Another contributing factor to limited access to health services was the polygamous family structure in some households. In these families, where men have multiple wives and many children, healthcare access became a challenge for all members of the family. The burden of caring for numerous dependents and the strain on household resources made it difficult for families to prioritize and access essential health services for each member.

Finally, geographical barriers further complicate access to health services. Health centers are often located far from remote villages, with limited transportation options to facilitate travel. This physical distance makes it difficult for community members, particularly in more isolated areas, to reach health facilities when needed. In many cases, the lack of reliable transportation and long distances prevented individuals from seeking timely care, leading to delays in treatment and worsened health outcomes.

Low use of health services

A notable gap existed in the uptake of services like family planning, which was hindered by limited knowledge, concerns about side effects, and poor attitudes of healh workers. These factors contributes to a reluctance to engage with these services, despite their availability. The community reported that there were improvements in the adoption of family planning methods, such as injection implants. This shift was recognized as a positive change, as it allowed for healthier pregnancies and better care for their children. "Family planning methods introduced by foreigners have helped change this mindset, with many mothers now utilizing these methods to space their pregnancies."

In contrast, malaria treatment was more widely accepted, likely due to the frequent occurrence of the disease and the community's familiarity with its treatment protocols. However, because of the challenges in accessing formal healthcare, many individuals, particularly those in more remote areas, turned to traditional birth attendants for care. This was often due to the closer proximity and accessibility of traditional healthcare providers, who are seen as more approachable and trusted within the community. During the farming season, when workloads are at their peak, utilisation of healthcare services is also limited.

Low birth-spacing

One of the main contributing factors was that in some households, husbands discouraged the use of family planning. There was a reluctance to embrace family planning, particularly in polygamous families where men had multiple wives and numerous children. Frequent pregnancies with insufficient time between births limited the mother's ability to regain strength, impacting their overall nutrition and health and their ability to provide adequate prenatal care, including exclusive breastfeeding.

Low birth weight

In Lira Kato, communities identified low birth weight as a significant challenge and driver of malnutrition. Communities noted that low birth weight children are most common during many rainy seasons. The additional physical strain during these periods can lead to poor maternal health, which in turn affects fetal growth. Another significant factor contributing to low birth weight is low birth spacing, particularly in cases where women give birth every year.

Despite these challenges, there are instances where women have healthy birth outcomes despite difficult conditions. For example, one mother described feeling very ill during pregnancy, experiencing body weakness, weight loss, and a generally thin body. Despite these challenges, she gave birth naturally to a 3.1 kg baby, which was considered a normal weight. Similarly, another mother had a baby weighing 3.7 kg even though she gave birth two days after the expected due date, with no complications. These experiences suggest that while low birth weight is a significant issue, there are also cases of healthy pregnancies despite adverse conditions, indicating that other factors, such as prenatal care, may play a role in birth outcomes.

Non-optimal nutritional status of women

The non-optimal nutrition status of women was influenced by a combination of physical strain, seasonal work demands, and limited access to diverse and nutritious food. Women often faced limited dietary variety, as the same type of food was consumed across different seasons, leading to a lack of nutritional diversity. The reliance on a narrow range of food items, especially staple crops, left women vulnerable to nutritional deficiencies that impacted their overall health and well-being. The lack of dietary variety not only affected women's physical health but also had long-term implications for their ability to care for their children and ensure healthy pregnancies.

MENTAL HEALTH AND CARE PRACTICES

Non-optimal mental well-being of the caregiver

Many participants in the community spoke of the persistent emotional toll caused by mistreatment by their husbands and the lack of support from in-laws. This lack of support often left caregivers feeling isolated and overwhelmed, contributing to a non-optimal mental state. For example, one woman shared that she constantly felt sad and depressed due to the mistreatment from her husband, compounded by the absence of help from her extended family.

Some women reported not experiencing mental health issues during physical illness, suggesting that their physical health challenges did not exacerbate mental distress in those particular instances. However, others described significant mental health challenges, particularly during periods of conflict with their husbands. In some cases, heavy drinking by husbands contributed to violent behavior, leading to heightened emotional distress and feelings of sadness. One participant shared that she experienced a lot of sadness, especially when her husband was intoxicated and became violent, further increasing her mental strain.

These emotional and mental health challenges can have profound implications on the caregiver's ability to provide effective care for children and maintain a healthy home environment. The ongoing emotional toll of domestic conflict contributes to non-optimal mental wellbeing, affecting not only the caregiver's quality of life but also their capacity to make informed decisions about their health and family care. Reducing emotional stressors and fostering more supportive family environments would help improve both mental wellbeing and overall health outcomes for caregivers in Lira Kato.

Non-optimal breastfeeding practices

In Lira Kato, non-optimal breastfeeding practices for children under six months is a concern because many mothers are facing challenges related to perceived insufficient breast milk production and poor mental well-being. This issue often leads to the early introduction of solid foods. One mother noted that she had to introduce sugar water early on to help provide her child with energy, as her breast milk was insufficient.

Some mothers reported being informed about the benefits of colostrum, with one mother mentioning that thirty minutes after delivery, she was advised by the nurse that colostrum is essential for the baby's health. However, other mothers experienced delays in initiating breastfeeding, often due to hospital practices such as prolonged separation from their newborns. For example, one mother explained that her baby was taken away immediately after birth and was only returned to her the following morning, which delayed the start of breastfeeding and may have contributed to the challenges in establishing a sufficient milk supply.

Despite these challenges, some mothers remain committed to extended breastfeeding. For instance, one mother expressed her

intention to continue breastfeeding her child until the age of two, as recommended by health professionals. However, the challenges surrounding insufficient milk production and delayed initiation of breastfeeding suggest that many mothers face difficulties in meeting the recommended guidelines for exclusive breastfeeding during the first six months.

Non-optimal complementary feeding practices

Mothers reported begining feeding solid foods as early (as mentioned above), while others waited until the child reached six to eight months or later, based on signs of readiness such as the ability to sit up or show interest in food.

Common complementary foods in the community include porridge, silverfish, dark green vegetables like 'boo', peas (locally known as 'Lapena'), bean soup, fried potatoes, and water. These foods are often selected based on availability, traditional practices, and what mothers believe the child can tolerate. While these foods offer nutritional value, the lack of variety in the diet can limit the range of nutrients required for optimal child development, with diets often lacking in animal sources of protein and vitamin-A rich fruit and vegetables.

The feeding frequency also varies among families, with some children being fed twice a day, while others receive food three times a day, particularly during the morning, afternoon, and evening. In some cases, children are also given significant amounts of water, replacing breastmilk. The introduction of food is often adjusted according to the child's acceptance of food, with mothers sometimes making changes if the child rejects certain foods. For instance, one mother started complementary feeding at eight months because earlier attempts resulted in her child spitting out the food.

Overall, the introduction of complementary foods in Lira Kato appears to be inconsistent and non-optimal in terms of variety, nutritional balance, and appropriate feeding frequency. While some mothers are keen to introduce nutritious foods like silverfish and vegetables, others rely on a narrow range of foods that may not provide a full spectrum of essential nutrients.

FOOD SECURITY AND LIVELIHOODS

Low access to quality diet

Low access to a quality diet for many households was primarily driven by financial constraints and limited access to a variety of nutritious foods. These challenges contribute to poor health outcomes, particularly malnutrition among children, as families are unable to provide a balanced diet that includes essential nutrients like vegetables, meat, and other protein sources. A typical nutritious meal, which includes foods like smoked fish, beef, milk, and eggs, is usually reserved for special occasions such as Christmas or other festive times. As one mother shared, she only eats fish once a year due to the high cost, even though it is a nutritious option. Staple foods like beans, peas, and dark green vegetables make up most of the diet.

Food sources for many families in Lira Kato typically come from farm production, local markets, food aid from charitable organizations, and barter trade or gathering/hunting. The seasonal variations in food availability further exacerbate food insecurity, especially during the rainy season (May-August) when food supply is limited. However, during the dry season (August-October), food access is more stable, as more crops are harvested, and food is easier to acquire. However, most food produced is sold, leaving little for home consumption, further exacerbating food insecurity. The

competition for land due to population growth has intensified these issues, making it difficult for households to grow sufficient crops for their needs. Households that grow crops for only one season may face food shortages if the harvest is not properly managed or consumed before the next planting season. Households with polygamous families, especially where there is favoritism, experience greater food insecurity due to unequal access to resources, often leaving some members without sufficient food. Additionally, households with elderly parents, widows, teenage-headed families, and those with physically disable, members face even more severe challenges, as they often have fewer resources, support, and access to income to purchase or grow sufficient food. These vulnerable groups often rely heavily on kitchen gardens and small-scale farming to provide food for their families, but they still struggle to meet their nutritional needs.

Low access to revenues

Low access to revenues is a critical barrier to securing essential food items and providing children with a balanced diet. The main source of income in Lira Kato is farming, which has become more challenging in recent years due to changes in the market and the rising prices of food products. Over the past 10-15 years, farming was considered an easier source of income, but the economic climate has shifted, making it harder for families to afford the nutrient-rich foods they need to maintain good health despite increases in yields. The community faces several challenges related to farming, including changes in weather patterns, crop destruction by wild animals such as elephants, prolonged dry spells, weed infestations, and a lack of improved seed varieties. Animal diseases have become more prevalent in recent years, further straining household resources and limiting the ability of families to sell livestock or animal products to generate income.

In addition to farming, the community's income sources include the sale of firewood, offering labor, selling farm produce, and selling animals. However, these income sources are highly seasonal, with lower income during the dry season, further limiting families' ability to meet their nutritional needs. While there has been some improvement in income sources over the last 10-15 years, high inflation continues to affect the community's purchasing power, making it difficult for families to keep up with the rising costs of living.

Women in Lira Kato engage in a variety of income-generating activities, such as brewing and selling alcohol, casual labor in other people's gardens, selling agricultural products or working as hairdressers. These income-generating activities are essential for women to support their families. One woman shared that despite working hard, her household was financially struggling, and the lack of money affected her ability to provide for her child's health needs. Others noted that while they had earned a decent income through farming and brewing alcohol before pregnancy, their ability to generate income became more limited during breastfeeding periods due to physical constraints and the demands of childcare. The economic hardships faced by families in Lira Kato, including low incomes and seasonal fluctuations in revenue, contribute to the inability to access nutritious foods on a regular basis.

Low access to markets

Low access to markets is mainly due to high prices of items in the market. Women often face restricted access to larger markets or more profitable markets to sell products from their small-scale businesses. This is due to challenges related to distance from markets, a lack of transportation, and limited business infrastructure. Thus, women often sell locally, where the customer base is smaller, and the prices for their goods are lower. This limits their potential earnings, making it difficult to invest in nutritional foods or improve

their business ventures. Lack of access to markets means that agricultural products, especially the sale of livestock, are not always a reliable source of revenue, reducing families' ability to afford nutritious food or invest in better farming practices.

Low resilience capacities

Low resilience capacities affect the community's ability to withstand and recover from the challenges associated with farming and food security, placing an excessive burden, especially on women who are seen as responsible for the health and nutrition of the household. The impact of these challenges on nutrition is evident in the community's dietary habits. Meals are often limited in variety and usually prepared in the afternoon, typically starting around 3:00 pm after returning from the garden, resulting in one cooking session to conserve resources. Firewood is the primary cooking fuel, and minimal oil is used in food preparation, further limiting the nutritional quality of the meals.

During post-harvest periods, families are able to eat at least two meals a day with a wider variety of foods. Alcohol abuse is also widespread in Liro Kita and is often used as a negative coping strategy, typically by men in the community, further escalating challenges faced by families. In some cases, households sell farm produce to cover expenses like alcohol, which further exacerbates food insecurity.

WATER, SANITATION & HYGIENE

Low accessibility, availability and quality of water

Households reported struggling with poor household practices, such as improper water storage. Families do not have reliable sources of potable water. This forces them to depend on water from unclean sources, which increases the risk of contamination.

Non-optimal sanitation practices

In Lira Kato, non-optimal sanitation practices are a concern, largely driven by challenges related to latrine accessibility, construction costs, and seasonal weather patterns. One of the main issues is the inadequate functionality of latrines during the rainy season, when heavy rains often fill latrines with water, rendering them unusable. This results in a lack of proper sanitation, increasing the risk of waterborne diseases and poor hygiene. The overflow or flooding of latrines during this period further exacerbates the sanitation problem, leading to environmental contamination and increasing the risk of illness in the community.

Another critical challenge was the high cost of constructing latrines. The materials required for proper latrine construction, along with the cost of hiring laborers to dig the pits, made it difficult for many households to build or maintain sanitary facilities. As a result, even though the number of households using latrines had increased over the past 10-15 years the overall quality and reliability of sanitation facilities remained inconsistent. Households are unable to afford the necessary resources for constructing durable and functional latrines, and this financial barrier limits widespread adoption of optimal sanitation practices.

GENDER

Heavy workload of women

The heavy workload of women was a significant barrier to their health and well-being, as it required them to balance multiple, demanding responsibilities. Women in the community are expected to take on a range of tasks, including farm work, household chores, childcare, and income-generating activities. This workload is particularly intense during the farming season, when women are

required to perform tasks such as planting (March-April), weeding (May-July), collecting firewood, and grazing livestock. As one woman described, she works from morning until evening in the garden without any help from her husband, only to return home to take on household chores like cooking, washing, and fetching water. This exhaustion from managing multiple roles often leaves women with little time or energy to care for themselves and seek necessary health services.

The physical strain of this workload affects not only the women's health (and mental health) but also the health of their children. Limited time for childcare due to the demands of farm work and household chores can prevent women from providing proper care for their children, particularly during the breastfeeding period when mothers need to focus on their own health and recovery. Many women, especially during pregnancy, work until the moment of delivery, only resting after childbirth. One woman shared, "When we are pregnant, we work throughout until we deliver, and only then can we rest," highlighting the physical toll that this workload places on their health. Furthermore, the heavy workload significantly limits access to healthcare services.

Low decision-making power of women

Over the past 10 to 15 years, there has been little change in the decision-making power of women in Lira kato. This historical lack of change continues to hinder women's ability to act independently when it comes to child nutrition and health especially within the first 1,000 days of a child.

Low decision-making power of women in Lira kato has had profound implications for their health and wellbeing and that of their families as well. One of the most significant areas where this lack of autonomy is felt is in decisions related to family planning. Women often face barriers to making decision sabout family planning services, largely due to cultural norms and gender dynamics within the household. In many cases, husbads control decisions about the family size, birth spacing and the use of contraceptives. Participants noted, "if a woman is not allowed to make decisions about family planning, it will eventually lead to low birth spacing," underscoring the impact of limited agency in reproducted health matters.

This lack of decision-making power also extends to broader household management, where husbands often dictate major financial and health-related decisions. The community reported that women often control the income they make from alternative income-generating activities such as brewing alcohol or hairdressing, but the income generated from agriculture is typically controlled by men, which can limit the financial autonomy of women in the household.

If the relationship between a woman and her husband is poor, with the husband not allowing the wife to make decisions, this can negatively affect not only the woman's well-being but also the health and development of the children . For example, when a husband goes to the trading center to drink alcohol during the dry season, the wife's ability to make critical decisions, such as seeking healthcare or providing adequate nutrition for the family, is significantly hindered. This lack of control over household decisions exacerbates health risks for both women and children.

Low social support of women

One of the most notable issues was the lack of involvement from men in healthcare decisions and practices. Very few men accompanied their wives to the health facility, as they often did not prioritize health as an important aspect of family life.

Additionally, the lack of support from men added to the emotional and physical burden on women. As women expressed, "They felt a lot of sadness because their husbands did not support the family, leaving them to work hard to provide for everyone." Others

reported that after spending hours in the garden, they would come home and take on household chores as well, having to handle everything on their own. This sentiment was shared by many women in the community who are left to manage household responsibilities alone. Financial support and emotional backing from husbands was minimal, and this lack of partnership further strained women's physical and mental health.

However, some positive interventions from NGOs helped to alleviate the burden on women. The organizations helped by taking malnourished children to a treatment centers, providing much-needed care for children in need. While external support from organizations was beneficial, it highlighted the limited local support from within the community, particularly from men, in addressing the needs of women and children.

PATONGO

WASTING

Community perceptions of wasting

In this community, wasting is seen as a reflection of the household's inability to take proper care of itself. It is often associated with a low status within the community, indicating that the family is struggling with food insecurity or is unable to provide the adequate nutrition necessary for the health and development of its members.

This perception of wasting is deeply tied to the economic standing of the household. Families that experience malnutrition are often viewed as being financially disadvantaged, with limited access to nutritious foods, healthcare, or other essential resources. As a result, wasted children are often seen as a symbol of a family's struggle, and the issue of wasting is not only a health concern but also a matter of social stigma.

The table below outlines all the terms used by the community to refer to wasting.

WASTING	
Neero	It's interpreted as someone who comes from a household that is not able to take care of themselves. It means that the status of the household is low
Lagooro	Someone who needs support

Table 7: *List of local terms used to describe wasting in Patongo*

A summary of perceived causes, vulnerability, prevention and treatment of wasting is presented in table 8 below.

WASTING	
Causes	• Failure to adhere to medical prescriptions due to financial challenges • Poor health among children due to lack of resources • A lot of time is spent on garden work rather than preparing meals on time and children are not eating enough food
Vulnerability	• Inadequate drug supplies • Financial constraints, such as lack of money for buying drugs and referrals • Women who have a lot of work at home with no one to help them, including farm work and household chores • Low birth spacing due to men discouraging access to family planning services • Limited decision-making power of women regarding the use of family planning services • Households with a low level of education, resulting in limited financial capacity to care for children • Polygamous families where men have many and they cannot take care of them
Prevention	• The use of traditional healing methods like herbal remedies • Avoiding family planning because it causes malnutrition • Consumption of nutrient-rich foods so that children are healthy • Ensuring that the home is always clean and not dirty
Treatment	• Medical treatment from the health facility where people are given medication • Support from traditional healers to treat malnutrition • Avoiding the consumption of alcohol for both the husbands and wives in the household

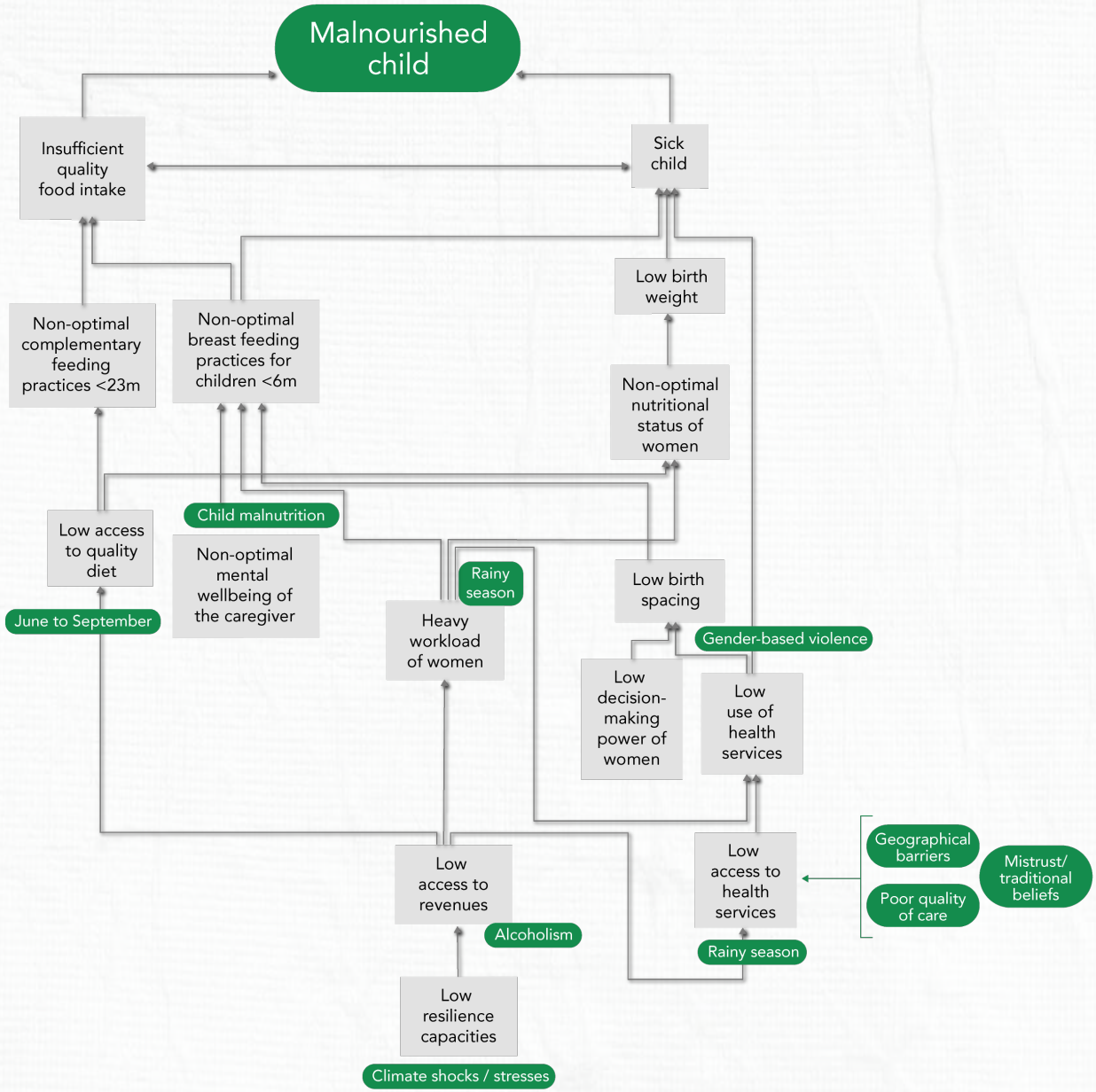
Table 8: *Summary of community perceptions of causes and treatment of wasting in Patongo*

Community perceptions of causal mechanisms of wasting

	DETERMINANT	SUMMARY POINTS	LINKAGES W/ OTHER DETERMINANTS
A	**Low resilience capacities**	• Men tend to sell all the food being harvested indorder to drink alcohol, living the family with no food to eat and sometimes the sell the food in the house is used to pay for school fees of their children. Lack money for purchasing the household necessities and mothers have to surrender their food to the children and go hungry.	• Low access to revenue
B	**Low birth-spacing**	• Traditional belief in the community that married women role in the home is to give birth and multiple clan members this results to low birth spacing. There is pressure from mother in law who wants their son to produce rapidly. Men not want their wives to use family planning. Keep having children till a boy is born. Miss information about family planning side effects	• Low decision making power by women • Low use of health services • Non optimal breast feeding practices
C	**Heavy workload of women**	• Food and production has been left on women and at the same I have to look for food for my children and sometimes am weak do not eat the whole day. Men in our community think that domestic work is supposed to be done by women-so we struggle with a lots of work for us afford all the basic needs. The workload for women is higher in the households where the husbands suffer from alcoholism and gambling addiction.	• Low nutritional status of women • Non-optimal breastfeeding practices • Low access to revenue

D	**Low access to revenues**	• Animals/cattle which are usually sold for income have been looted therefore, households are not able to generate income through sale of animals. Too much sunshine with low rain fal dried up most of the crops which resulted to low yield which wasn not adequate enough to sustain many children whos demand for food hight	• Low resilience capacity • Low access to health services • Low access to a quality diet
E	**Low decision-making power of women**	• Women have low-decision making power around use of family planning services and birth spacing	• Low birth spacing
F	**Non-optimal breastfeeding practices for children <6m**	• Women fear breastfeeding children at the workplace, so children are left to bottle feed with grandmothers. teenage girls who gets pregnants at an early age fears breasfeeding their childrn in public places. Reported issues with low production of breastmilk	• Non-optimal mental well-being of caregivers • Heavy workload of women • Low birth spacing
G	**Low access to health services**	• Low access to health service because the health facility is far from their homestead, they are mostly engaged in farming during rainy season so do not have time (do not prioritise) attending HF for ANC, immunization etc (this the season when people also temporally migrate to distance farm land approximately 40kms a way from the health facilty). There is often waiting time at the facility and drug stock outs (quality of care, geographical and temporal barriers)	• Low utilization of health services • Low access to revenues

Figure 3: *Community perceptions of causal mechanisms of wasting in Patongo*



Seasonal & historical variations

Historically, local medicine and traditional herbal remedies were the primary methods of treatment in the community. However, over the past 10 years, there was a shift in this preference due to sensitization efforts led by Village Health Teams (VHTs), NGOs, and health workers. These initiatives have encouraged the community to seek modern medical care rather than relying solely on traditional herbalists. Seasonally, from February to May each year, the community's health-seeking behavior changes significantly due to the heavy demands of land preparation, planting, and weeding. During this period, many people in the community do not prioritize visiting health facilities, as they are busy with farming activities. Additionally, many individuals temporarily migrate to distant farmlands, located approximately 40 km away from the nearest health facility, where they focus on intensive farming activities. During this time, they often purchase medications, particularly anti-malarial drugs, and carry them along as a preventive measure, in case anyone falls ill during the farming season.

Patongo has faced several healthcare challenges, particularly during the period when many community members were living in camps. There were fewer health facilities, a high disease prevalence, and a limited number of health workers. While the government has since established more health facilities, many community members continue to prefer seeking care only when their health conditions have significantly worsened. This reluctance to seek early medical intervention remains a challenge, even with improved healthcare infrastructure.

HEALTH AND NUTRITION

Low access to health services

Low access to health services is an issue, particularly due to the distance of health facilities from many households and the seasonal migration associated with agricultural activities which are the main source of income. During this period, many mothers miss critical health appointments, such as children's immunizations and Antenatal Care ANC visits, due to the long distances and the prioritization of farming activities over health needs.

The distance to health facilities is a significant barrier for many residents of Patongo, particularly those in more remote areas. One man from Patongoe explained that access to health services is limited because the health facility is located too far from their household, making it difficult for them to travel, especially during the busy farming season. This lack of proximity to health services discourages timely medical visits and leads to delayed treatment for common illnesses and preventive care, such as immunizations and maternal health check-ups. The lack of transportation options and the financial constraints of many families also contribute to the low access to healthcare, leaving individuals, particularly vulnerable groups like children and pregnant women, at risk of preventable diseases and poor health outcomes.

Low quality care is also a barrier to accessing health services. There are often drug stock outs and long waiting times at health facilities. Many men in Patongo expressed frustration with the delays at the health center, which discourages them from seeking care. Additionally, some community members report that when they visit the health facility, they do not always receive adequate treatment.

Low use of health services

When women visit the health facility, they are frequently faced with empty drug shelves and are often referred to buy medications from private clinics. However, due to their limited financial resources, they are unable to afford these medications, and as a result, many turn to local herbal remedies as a more affordable alternative.

The facility in charge of Patongo Health Care Centre (HCV) highlighted that community mindsets play a critical role in the low use of health services. One of the main barriers is the reluctance of men, particularly in rural areas, to have their wives attended to by male doctors. Additionally, traditional beliefs continue to influence healthcare choices, with some community members still preferring to visit traditional healers instead of seeking care at the health facility. These practices are particularly common among the elderly, who sometimes influence younger generations to use local medicine for conditions like malaria, diarrhea, cough, and flu, even though modern medicine may be more effective. This generational influence remains significant, especially among mothers-in-law who frequently bring their young grandchildren to herbalists for treatment when they show signs of illness.

In terms of maternal health, the Traditional Birth Attendants (TBAs) shared that despite the government's push for women to deliver at health facilities, many mothers continue to seek help from them. However, these women often complain that their husbands do not support them with delivery kits, which are required by midwives when they deliver at the health facility. The lack of delivery kits leads to conflict and poor treatment at the health facility, where health workers sometimes shout or quarrel with the mothers, making them feel fearful and reluctant to seek professional care.

There is also a negative perception toward using family planning services, with some members of the community still believing that having many children is important for security purposes. Many women also reported concerns of negative side effects, such as over-bleeding and other health issues. Women in the community also face social pressure and stigmatization for using family planning methods. This is particularly evident in polygamous households. This reduces the uptake of family planning and perpetuates overcrowded families, which are harder to support financially and nutritionally.

Low birth-spacing

In Patongo, low birth spacing is a common practice driven by cultural beliefs and fear of side effects associated with family planning. Many women in the community have children with a slight age difference of one and a half years. There is a prevailing traditional belief in the village that women are married to give birth and to expand the family clan, which results in large families and low birth spacing. This cultural mindset often encourages women to have children closely spaced without considering the health implications for both the mother and child.

A significant influence on this practice comes from family dynamics, particularly the role of mother-in-laws, who often pressure women to produce many grandchildren. The mother-in-law's desire for a large family with numerous grandchildren is culturally rooted, and this can sometimes overshadow the health and well-being of the mother. In some cases, men's preferences also play a role in the low birth spacing; one man from Oporot shared that he does not want his wife to use family planning because she keeps producing only girls, and he desires a boy, which contributes to closely spaced pregnancies.

The traditional birth attendants TBAs in the village have also linked low birth spacing to malnutrition. According to the TBA, mothers often stop breastfeeding their children when they become pregnant again, typically around one and a half years of age. This early

cessation of breastfeeding, coupled with closely spaced pregnancies, can contribute to nutritional deficiencies and poor health outcomes for both the mother and the child.

Additionally, the social environment in Oporot contributes to this issue. Many men in the community engage in alcohol consumption, often drinking until late hours, which leads to intimate partner violence. Women are sometimes forced into sexual relations against their will, contributing to unplanned pregnancies and closely spaced births. This further exacerbates the challenges of managing a healthy family and providing the necessary care and resources for each child.

Low birth weight

Low birth weight is a health concern, with several factors contributing to the condition, including maternal nutrition and healthcare access. Men in the community have expressed that women often give birth to low birth weight children due to a lack of appetite for nutritious food during pregnancy. They believe that the inadequate intake of nourishing foods prevents the baby from growing properly in the womb, which leads to low birth weight at birth. This perception underscores the connection between maternal nutrition and the birth weight of children in the community.

Mothers shared her experience of giving birth at a health facility, noting that while the delivery process itself went smoothly, the birth weight of her children was not normal and much lower than expected. The doctors had anticipated a different weights, but the babies were born with a thin body, and the children were premature. As a result, the babies had to be admitted to the nutrition unit to receive specialized care. Despite having completed seven antenatal visits, the babies's low birth weight and prematurity indicated that other factors, such as maternal health and nutrition, may have influenced the outcome. The community's understanding of low birth weight often centers around the maternal diet and pregnancy care, emphasizing that a poor appetite and insufficient nutrition contribute to the issue.

Non-optimal nutritional status of women

The non-optimal nutrition status of women was significantly influenced by a combination of heavy workloads and low access to quality diets. The constant physical strain left little time for women to focus on proper nutrition or to rest. Women often rely on staple foods like maize and beans, which provide basic calories but lack the necessary vitamins and minerals for optimal health.

The seasonal nature of food availability also contributes to the challenges faced by women. During the rainy season, when farming and household work are most demanding, women often have less time to seek out and prepare nutritious meals, and the variety of foods available may be limited. During theses times, children's nutritional needs remain a priority, and mothers often have to surrender their food to their children, leaving themselves hungry in order to ensure that their children are fed.

MENTAL HEALTH AND CARE PRACTICES

Non-optimal mental well-being of the caregiver

The non-optimal mental wellbeing of mothers was an issue, influenced by gender-based violence GBV, polygamy, and extramarital affairs that contributed to stress and emotional distress. Mothers in shared their experiences of mental strain due to the violence and emotional abuse they faced from their husbands. Women reported that their husbands engaged in extramarital affairs and polygamy, practices that were often common in the community but caused deep emotional harm to the women. When women questioned their husbands about these relationships, they were met with violence and intimidation, which contributed to a sense of

powerlessness and ongoing stress. The constant emotional strain from these experiences often led to mental health issues, such as ulcers, which are commonly diagnosed by health personnel as being caused by overthinking and chronic stress.

The impact of gender-based violence GBV on the mental wellbeing of mothers was profound. The emotional toll of being subjected to violence, lack of support, and increased household responsibilities led to stress that affected not only their physical health but also their ability to care for their children. Mothers reported feeling ashamed or embarrassed when their children were referred to by derogatory terms like "twor neto" or "twor cam" (a local term often used to describe children suffering from malnutrition), as this stigma further exacerbated the mental burden they carried.

The link between malnutrition and mental wellbeing was also evident, as mothers witnessed their children suffering from thinness, wasting, or a swollen stomachs due to malnutrition. These physical signs of malnutrition were a constant reminder of the challenges they faced in providing proper care and nutrition for their families. The feeling of inadequacy and the social stigma attached to malnutrition contributed to increased stress and mental health struggles for mothers in Patongo.

Non-optimal breastfeeding practices

Non-optimal breastfeeding practices were influenced by a combination of socio-cultural and economic factors, which impacted both the timing and quality of breastfeeding. During a FGD with mothers of children under 5, mothers shared that working-class women face significant challenges in breastfeeding their children due to the fear of breastfeeding at the workplace. As a result, these women often leave their children with grandmothers for extended hours during the day, with the children being fed bottle milk instead of breast milk. This practice, while sometimes necessary due to work commitments, contributes to sub-optimal breastfeeding and limits the benefits of exclusive breastfeeding in the early months of a child's life.

Another concern was the situation faced by teenage mothers, who often feared breastfeeding in public places. Many young mothers felt embarrassed or ashamed to breastfeed in public, and as a result, they left their children at home for long periods of time when they went to places like the market, burials, or ceremonial events. Some mothers reported being away from their children for five to seven, during which time the children were not breastfed, leading to a lack of the essential nutrients and bonding that breastfeeding provides. This reluctance to breastfeed in public places, particularly among teenage mothers, contributed to a cycle of poor nutrition and attachment issues.

Communities reported that inadequate nutrition for mothers can impact the quality and quantity of breast milk produced, contributing to non-optimal breastfeeding practices. One mother shared her experience of breastfeeding twins, describing how she had only 1 hour and 5 minutes of rest after giving birth to her twin boys, Ocen and Opio. Despite the exhaustion, her mother-in-law initiated breastfeeding for the twins, as they were crying and needed nourishment. The mother's lack of time and physical strain reflect the broader challenges women face in providing optimal care for their children, particularly in the absence of supportive environments that encourage breastfeeding and rest.

Non-optimal complementary feeding practices

The shortage of food, particularly nutrient-dense options for complementary feeding, such as meat, fish, vegetables, and fruits, is a key barrier. Mothers may not have access to high-quality foods that are critical for the development of young children, which can lead to poor feeding practices and delayed growth. Despite their

best efforts, many mothers in Patongo face the difficult challenge of balancing limited resources with the high food demands of their children. One mother shared that for the past two years, her child has experienced wasting because she only feeds them beans and posho (a maize meal), along with breast milk. The lack of diverse food options in her household has left her child vulnerable to nutritional deficiencies.

FOOD SECURITY AND LIVELIHOODS

Low access to quality diet

There is limited consumption of nutrient-dense foods such as fish, goat meat, eggs, and orange-fleshed potatoes. Households are often dependent on what they can grow with the seasonal nature of food availability further limiting the consumption of a quality diet, particularly during the months of June to September, when the little harvest from the previous season has already been consumed. During this period, food scarcity is particularly severe, and families often go without enough food, which leads to a weakened immune system for children. The prolonged droughts that affect food production also contribute to the lack of quality diet. One mother shared how her household struggled with food shortages due to the devastating effects of climate change, particularly drought, which severely affected food production in the district. As a result, many of the crops that were planted dried up, and the harvest yields were insufficient to meet the needs of the household, leaving families vulnerable to hunger.

Low access to revenues

Mothers reported that they lack income-generating activities or jobs that would provide them with money for essential needs, including a quality diet and healthcare. Women often rely on working in other people's gardens, where they are paid a small amount of money, which is insufficient to meet their needs.

Participants shared a story of how the insurgency by the Lord's Resistance Army (LRA) in Northern Uganda significantly impacted their livelihoods. During the conflict, their animals were looted, leaving them without the livestock they once relied on for income. Without animals to sell, they no longer had the ability to pay for medical bills or cover other essential costs.

Low access to markets

While many women in the community have access to local markets, they face a critical challenge: the goods sold at these markets are often too expensive for them to afford. Despite being able to physically reach the markets, the high cost of goods makes it nearly impossible for these women to purchase nutritious foods, household necessities, or other essential items for their families.

As a result, many women are left with no choice but to rely on cheaper, lower-quality goods or local remedies, which may not provide the necessary nutrients for their children or meet other health and household needs. This lack of affordable options in the market continues to reinforce the cycle of poverty and malnutrition in Patongo.

Low resilience capacities

During a group discussion, women in the community shared how the economic decisions of their husbands often lead to insufficient food and revenues for the household, with many men in Patongo often spending their income on gambling, playing cards, and drinking alcohol rather than engaging in productive work. They explained that men frequently sell the harvested crops to buy alcohol, leaving the family without enough food to meet their nutritional needs. In some cases, food is also sold to pay for school fees for the children,

further compromising the family's ability to maintain a balanced diet.This lack of financial stability and poor decision-making around household resources contribute to low resilience within the family, making them more vulnerable to malnutrition and other health issues. Additionally, weather changes, particularly during the planting season, further affect food production in Patongo. Droughts and unpredictable weather patterns lead to low crop yields, making it even harder for families to produce enough food to sustain themselves throughout the year.

GENDER

Heavy workload of women

One mother, who has eight children, shared her experience of constantly breastfeeding while simultaneously being responsible for finding food for her children. She explained, "Look at me, I'm still breastfeeding, and at the same time, I have to look for food for my children. My husband fears responsibility, and sometimes if I don't work hard, my children go to bed with an empty stomach." This reflects the deep gender imbalance in household labor, where men often avoid responsibilities, leaving women to shoulder all the domestic and economic duties.

The community's traditional view that domestic work is a woman's responsibility compounds the heavy burden placed on women. Men in the village frequently engage in drinking and gambling until late at night, while women are left to manage the household, care for children, and work in the fields. Mothers described the situation, stating, "Men have left all the work to women. Most of them go drinking and gambling until midnight, and when they come back home, they start by asking for food." This situation leaves women with little time for themselves, as they are expected to manage everything, often with little to no support from their husbands.

The seasonal work cycle in Patongo further exacerbates the workload for women. From January to March, during the land preparation and clearing period, women are primarily responsible for agricultural activities such as opening farm lands, which is physically demanding. Meanwhile, most men are focused on alcohol consumption, leaving women to handle farm work as well as domestic chores. On the other hand, from November to December, when the community is in the harvest season, women have slightly less work as the focus shifts to harvesting crops, but the burden of caring for the family remains.

Over the last 10-15 years, there has been no significant change in this gendered division of labor, and women continue to bear the weight of both domestic responsibilities and agricultural work. The lack of gender equality in labor division leads to financial strain and physical exhaustion, preventing women from focusing on self-care or seeking healthcare for themselves or their children, impacting child health as well as feeding and care practices.

Low decision-making power of women

Many women in the community do not have the autonomy to make decisions about their reproductive health, as these choices are often controlled by their husbands or male family members. As a result, women's ability to access family planning services or make decisions about the timing of pregnancies is severely restricted. The lack of decision-making power stems from deeply ingrained cultural and societal norms, where men are traditionally viewed as the primary decision-makers in the household. In many cases, women's preferences for birth control or birth spacing are disregarded.

ADILANG

WASTING

Community perceptions of wasting

In Adilang, the community's perception of wasting in children is closely tied to the household dynamics, economic status, and family relationships. The community recognizes that certain types of households are more vulnerable to malnutrition and wasting due to a combination of social, economic, and health-related factors.

Child-headed families, polygamous families, widows, and orphans are often seen as the most vulnerable to wasting, as these households typically lack the necessary resources and care to provide for the nutritional needs of their children. In particular, households with low economic status and low education levels struggle significantly to ensure their children receive proper nutrition, further exacerbating the risk of malnutrition. Additionally, households where the caregiver is addicted to alcohol are seen as highly vulnerable, as the addiction often limits the caregiver's ability to provide proper care, resulting in poor health outcomes for the children.

In these vulnerable households, low birth spacing, lack of proper care, and poor feeding practices contribute to the high rates of wasting. The community perceives that children born without proper spacing are more likely to suffer from under-nutrition, as the mother's resources—both physical and financial—are stretched thin. Similarly, when children are not breastfed for a sufficient amount of time or are not fed on time, they become more susceptible to wasting. In households where domestic violence occurs or where there is no shared decision-making about family health, children are more likely to experience neglect or inconsistent care, further contributing to malnutrition.

Another contributing factor is the economic pressure on households. Many families sell most of the food they grow to pay for school fees or other needs, leaving insufficient food for the children at home. The community views this as a key cause of wasting, as children do not receive enough food to support healthy growth. Moreover, seasonal food insecurity is also a major concern, as families often only grow food for one season, and if the food is not properly consumed or stored, they face food shortages for the rest of the year, leading to undernutrition in children.

Prevention of wasting in Adilang is viewed as achievable through education and proper nutrition. Educating mothers on healthy feeding practices, such as providing nutrient-rich foods and preparing high-energy recipes, is seen as essential to reducing the risk of malnutrition. The community also believes that eradicating alcoholism would improve family stability and the caregiver's ability to provide adequate nutrition and care.

For treatment, the community recommends nutritional interventions like plumpy nut (RUTF) from the hospital, as well as the inclusion of nutritious foods like eggs in children's diets. Additionally, early referral to health facilities for sick children is emphasized to ensure timely treatment and prevent further deterioration of the child's health.

The table below outlines all the terms used by the community to refer to wasting.

WASTING	
Twor Neero	It means someone is suffering from malnutrition. Someone with a big stomach.

Table 9: *List of local terms used to describe wasting in Adilang*

A summary of perceived causes, vulnerability, prevention and treatment of wasting is presented in table 10 below.

WASTING	
Causes	• Lack of enough food • When child spacing is not done • Selling of food harvested to get school fees leads to lack of enough food for children • Lack of proper care for the children • When you don't breast feed a child up to 2 years • When a child does not eat at the right time • When you don't take a child to the hospital when they are sick • When a mother separates from a father when the child is still very young • When there is no good relationship between a father and mother • When a child is under care of other people who are not the parents
Vulnerability	• Homes with very many children who do not have enough to eat • Home where children are born without spacing • Homes with alcoholism • Homes where men do not want to do garden work • Homes where women are lazy and don't want to work • Polygamous homes • Homes where there is no shared decision making • Homes where they don't take people children to the hospital • Homes where parents are not always around to monitor what is happening • Homes with domestic violence • People sell most food they grow while not keeping little for home consumption • People grow crops for only one season and if this food is not consumed appropriately, they won't have what to eat • Domestic violence in homes especially after harvest • Having very many women and children
Prevention	• Educating mothers on how to keep their children healthy • Giving children foods rich in nutrients e.g. making for them high energy rich recipes

	• Eradicating alcoholism
Treatment	• By giving children plumpy nut from the hospitals (RUTF) • By giving children more nutritious foods like eggs • By referring sick children to the hospitals

***Table 10**: Summary of community perceptions of causes and treatment of wasting in Adilang*

Community perceptions of causal mechanisms of wasting

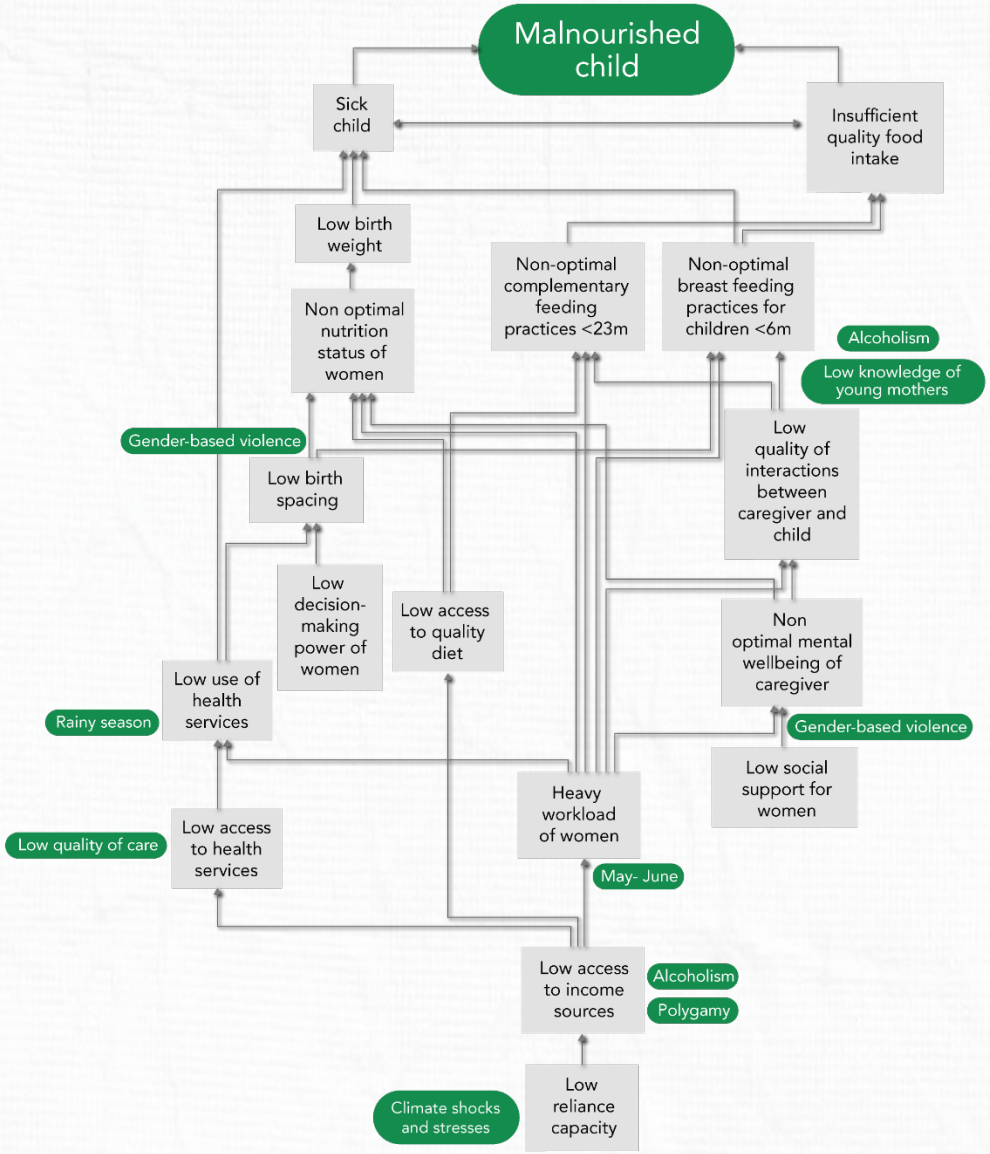
	DETERMINANT	SUMMARY POINTS	LINKAGES W/ OTHER DETERMINANTS
A	**Low access to revenues**	• Households with low-income levels face significant challenges in meeting their families' basic needs, including transport to health centers, treatment costs when drugs are unavailable, and access to quality food. Homes where parents are drunkards worsen this issue, as much of their income is spent on alcohol, leaving little for food and healthcare. Limited financial resources mean families cannot afford diverse and nutritious diets, putting children at risk of malnutrition. Families often sell the little food they have to cover school fees, leaving children without adequate nutrition and struggling to afford education. The lack of sufficient income creates a cycle of food insecurity and poor health, making children more susceptible to illness and malnutrition, women have to resort to causal labor to generate income	• Low access to health services • Low access to quality diet • Heavy workload of women • Low resilience capacities

B	**Heavy workload of women**	• When parents leave children with caretakers, the quality of care may be compromised, negatively affecting the children's well-being. In households with an alcoholic mother or women overburdened with farm work, the time and effort needed to prepare nutritious meals are often neglected. This issue is further compounded in polygamous families, where limited resources and attention are stretched thin, leading to poor health and social outcomes for children. Access to health facilities has also become more difficult compared to the past when fewer responsibilities allowed for easier access. Today, families are occupied with extensive workloads, further limiting their ability to seek timely medical care.	• Low quality of interactions between care taker and child • Low access to income sources/revenue • Low access to quality diet • Non-optimal mental wellbeing of caregiver • Low use of health services • Non-optimal breastfeeding practices • Non-optimal complementary feeding practice • Non-optimal nutritional status of women

C	**Low access to health services**	• The challenges of keeping children healthy stem from several factors. Income to facilitate transport to health facilities is often unavailable, making access difficult when treatment is needed. Even when families reach health centers, frequent drug stock-outs mean they must purchase medicine from drug shops, which limits access to quality healthcare. Alop Health Center II faces significant issues, including inadequate drugs and equipment, too few health workers, and prolonged waiting times, causing many patients to seek care from unqualified drug shops. These challenges are exacerbated by increased participation in social-cultural activities, which reduces the time and opportunity for families to access health services. In the past, health facilities were more accessible as fewer socio-cultural activities occurred during periods of rebellion. Today, these activities, combined with the lack of adequate resources and staffing at health centers, create significant barriers to ensuring children receive the healthcare they need.	• Low access to income sources • Low use of health services
D	**Low social support of women**	• When roles are not shared within households, productivity decreases, leading to reduced access to quality foods. The lack of cooperation between mothers and fathers further compromises the health and well-being of children, as mothers often lack the support needed to provide proper care.	• Non-optimal mental wellbeing of caregivers

E	**Low access to quality diet**	• Households experiencing domestic violence, large family sizes, and low-income levels face significant challenges in providing adequate care and nutrition. Caregivers in such homes struggle to produce food and seek healthcare for children, resulting in poor outcomes. During the farming season (April to June), inadequate food intake is common due to the focus on agricultural activities, while from August to February, food availability improves with the harvest. However, households often sell most of their crops without reserving enough for consumption, exacerbating food insecurity.	• Low access to revenues • Non-optimal nutritional status of women
F	**Low use of health services**	• Alop Health Center II faces significant challenges, including serving a large population with limited drug supplies from the national drug stores. Low birth spacing due to poor utilization of family planning methods, exacerbated by men's reluctance to participate, further strains families. During the farming season (May to August), even health workers report late for duties as they are involved in cultivation. Alcoholism contributes to malnutrition by fueling gender-based violence and reducing the practice of family planning. Poor child spacing and missed immunizations have left many children malnourished and unwell. Households with many children, low birth spacing, and weak or elderly caregivers face increased demands, often unable to provide adequate care. Small, malnourished women are more likely to give birth to underweight children, especially in homes affected by domestic violence, unhappiness, and a lack of medical care or adequate food. These issues are worsened by mothers consuming alcohol during pregnancy, HIV-positive mothers not adhering to medical advice, and unstable relationships, all contributing to a cycle of poor health and well-being.	• Low birth spacing • Low access to health services

Figure 4: *Community perceptions of causal mechanisms of wasting in Adilang*



Seasonal & historical variations

The community's agricultural patterns, weather changes, and cultural practices directly impact food security and nutrition, which are crucial for preventing malnutrition and wasting.

Seasonal variations play a key role in food availability and the resulting nutritional status of children. During the dry season (July-August), food is often scarce, as crops are not yielding due to prolonged droughts and high temperatures. This leads to low food availability, which affects the ability of families to provide sufficient nutrition, especially for young children, who are at higher risk of wasting. In contrast, during the rainy season (April-May, August-October), food availability increases, but the community faces geographical barriers, as heavy rains often make it difficult to access health facilities and transport food. This seasonal cycle creates periods of vulnerability where wasting is more likely to occur due to insufficient nutrition during the dry months.

Financial barriers are also evident during the planting season (April-May) and harvest season (August-September), when many families are engaged in farming activities and have limited income to purchase nutritious foods. During these busy agricultural months, there is less time for healthcare visits or childcare, and mothers may neglect breastfeeding or fail to provide adequate complementary foods, further contributing to wasting. Income fluctuations and food insecurity during these periods, combined with the high demands of agricultural labor, make it difficult for families to sustain a balanced, nutrient-rich diet for their children.

Historically, Adilang has seen improvements in food access and agricultural practices, but these gains are often seasonal. In the past, rain patterns were more predictable, leading to more stable food production. However, in recent years, the community has experienced longer dry seasons and unpredictable rainfall, which have disrupted crop production and food security, contributing to higher rates of wasting.

HEALTH AND NUTRITION

Low access to health services

One of the primary issues identified by the community is the lack of transportation to health facilities, especially in cases where urgent treatment is needed. Families often find it difficult to access healthcare due to high transportation costs, leaving them unable to reach health centers promptly when their children require medical attention.

Even when families manage to reach the health centre, the quality of care remains a major concern. The health facility is often faced with drug stock-outs, meaning that families are unable to access essential medications at the center and are forced to buy medicine from private drug shops. This situation, combined with the frequent shortages of medical supplies and equipment, greatly reduces the quality of care that patients receive. Families are often left with no choice but to rely on unqualified drug shops, which are not equipped to provide the proper treatment or diagnosis, further compromising health outcomes.

The community has also expressed frustration with the staffing levels at Alop Health Center II, where the few health workers

available often result in long waiting times. This shortage of healthcare providers significantly impacts the efficiency of the health center, with many patients forced to wait for extended periods before receiving care. These delays discourage families from seeking timely medical attention and contribute to the underutilization of formal healthcare services.

Historically, healthcare access in Adilang was more limited during times of rebellion, when the community was displaced and health facilities were not as accessible. During those periods, social-cultural activities were minimal, and the focus on community health was stronger. However, in recent years, as the community has become more engaged in social and cultural events for example burials and cultural meetings, these activities have contributed to reduced time and opportunity for families to access health services. The increased participation in these activities, combined with the challenges of transportation costs, staff shortages, and resource limitations, has made it harder for families to prioritize and access healthcare services.

Low use of health services

Despite the availability of health services, the community's low utilization of family planning methods, poor child spacing, and lack of awareness about healthcare needs continue to create significant barriers to improving health outcomes. Additionally, during the farming season (May-August), the demand for agricultural work is high, which often limits the ability of community members to prioritize healthcare visits and leads to health workers reporting late for their duties, as they are also engaged in farming activities. This results in delays in healthcare delivery, leaving many families without the medical attention they need.

Low birth spacing is a critical issue in the community, driven by the low use of family planning services. Men's reluctance to participate in family planning plays a major role in this issue, as they often influence the decision-making process in households. Household with low birth spacing or polygamous household often miss immunization. Health is often not considered a priority by many men, which reflects a broader issue of low male involvement in healthcare decisions. This lack of engagement contributes to underutilization of healthcare services and delayed treatments for children and mothers.

Low birth-spacing

One of the primary causes of low birth spacing is the low involvement of women in decision-making, particularly regarding family planning. In many households, particularly polygamous families, men control decisions about family size, often disregarding the health needs of the women and children. This lack of shared decision-making leads to closely spaced pregnancies, which can put women at physical risk and place a heavy burden on household resources. Alcoholism is another key factor that exacerbates low birth spacing and malnutrition in Adilang. Alcohol consumption by men is closely associated with gender-based violence and forced sexaul relationships.

Low birth weight

One of the primary contributors to low birth weight is the polygamous family structure, where a single man supports multiple wives and their children. This resource strain means that the women in these households do not receive the adequate nutrition and

healthcare they need, making them more likely to give birth to underweight children.

Poor nutrition during pregnancy, coupled with physical strain from heavy workloads and lack of resources, contributes to underweight births due to impacts on maternal nutrition. This challenge is often compounded in homes where domestic violence is prevalent, as stress and violence affect a mother's ability to care for herself, resulting in poor maternal health and potentially low birth weight in children. Additionally, when family planning is not practiced, closely spaced pregnancies increase the risk of low birth weight, as the mother's body may not have had sufficient time to recover from the previous pregnancy. In these families, women's health is further compromised when they lack access to medical care, have limited access to nutritious food, or consume alcohol during pregnancy. These behaviors increase the likelihood of low birth weight and other health complications for both the mother and child.

The challenges faced by HIV-positive mothers in Adilang further exacerbate the issue. Many HIV-positive women fail to adhere to medical advice, which significantly increases the risks of low birth weight and other complications. In households with unstable relationships, where mothers frequently change partners and have children in different homes, the lack of stability and support systems creates a cycle of poor health outcomes. This unstable environment, combined with poor nutrition and lack of medical care, leads to low birth weight in children, further perpetuating malnutrition and health issues in the community.

Non-optimal nutritional status of women

The lack of emotional support and domoestic violence contributes to a non-optimal nutritional status, as women may neglect their own dietary needs due to the stress of dealing with abuse and family conflict. In households with many children, where resources are spread thin, adequate nutrition for the mother becomes a secondary concern, further perpetuating a cycle of poor nutrition and poor health outcomes.

MENTAL HEALTH AND CARE PRACTICES

Non-optimal mental well-being of the caregiver

Households experiencing domestic violence create an environment where the caregiver's mental health is severely impacted. Domestic violence often escalates after harvest, during times of food shortages. In these situations, caregivers often struggle with stress, anxiety, and depression, which makes it difficult for them to provide adequate nutrition, emotional support, and healthcare for their children. Domestic violence creates a toxic environment where women face a lack of happiness and joy, and they are unable to focus on their own health or their children's well-being, perpetuating a cycle of poor physical and mental health. The lack of family support and shared decision-making leads to increased caregiver stress and an inability to provide adequate nutrition and healthcare for the children, further exacerbating the cycle of poor health and well-being.

Non-optimal breastfeeding practices

Households with low birth spacing face the most significant challenges, as the lack of proper maternal care during closely spaced pregnancies often leads to poor breastfeeding practices. Many mothers, due to physical exhaustion from caring for multiple young children, struggle to provide exclusive breastfeeding or fail to breastfeed for the recommended six months. This leads to a cycle of malnutrition and stunted growth in children.

Many young mothers, who are still in their adolescence, may struggle to maintain consistent breastfeeding, leading to a situation

where infants are not receiving the necessary nutrients from breast milk. This is particularly harmful, as exclusive breastfeeding for the first six months provides essential antibodies and nutrients that are critical for infant health and development. Women who suffer from alcoholism are also at a particular risk of not adhering to optimal breastfeeding practices, with alcohol consumption also impacting breast milk production and content.

Non-optimal complementary feeding practices

Young mothers who give birth at an early age often face challenges in properly caring for their children due to a lack of experience and limited support. These young mothers are less likely to be knowledgeable about proper nutrition and feeding practices, which can contribute to malnutrition in their children.

Many mothers introduce solid foods or water before the recommended six months, which can interfere with breastfeeding and deprive infants of essential nutrients. When complementary feeding is introduced too early or with the wrong foods, it can also negatively affect the child's nutrition. In some cases, solid foods are introduced prematurely, which may replace breastfeeding or interfere with the baby's nutritional needs. Additionally, mothers, especially young mothers, may not have access to nutrient-dense foods, relying on limited and less varied diets that do not support their child's growth and development.

The lack of experience and poor knowledge about complementary feeding practices are major factors that contribute to the cycle of malnutrition in Adilang. Without adequate education and support, these young mothers struggle to ensure that their children receive the proper nutrition and care, which increases the risk of poor health outcomes.

Low quality of interactions between a child and a caregiver

Young mothers, lacking the experience and knowledge needed to care for their children, faced significant challenges. From May to July, when the farming season was at its peak, caregivers, especially young mothers, were overburdened with a heavy workload. This seasonal work pressure reduced the time mothers had to spend with their children, often leaving children with elderly caregivers, making it difficult for them to provide the necessary nurturing and emotional care required for healthy child development. The absence of parental presence and involvement in children's lives was often compounded by domestic violence, creating an unhealthy environment that further affected children's physical and emotional well-being. In these environments, children were not able to receive the proper supervision, care, or nourishment needed to thrive, perpetuating a cycle of poor health outcomes for both children and caregivers.

FOOD SECURITY AND LIVELIHOODS

Low access to quality diet

The community faces significant seasonal food insecurity. From April to June, during the farming season, food intake is insufficient as households focus primarily on agriculture rather than food consumption. This period is marked by limited food availability, as families may not have enough food reserves to meet their daily needs. However, from August to February, following the harvest season, food availability improves, and there is more access to food to feed the family. Low-income households face further challenges when food production is impacted by climate change, resulting in low harvests from their gardens. During these times, families often have to sell most of their crops to cover school fees, leaving little to no food for the family to consume. In polygamous households, where a single man has multiple wives and many children, the family

size becomes too large to be adequately supported. As a result, many children are fed a monotonous diet consisting mostly of maize, beans, and posho, leading to nutritional deficiencies and malnutrition.

Low access to revenues

Many families struggle with insufficient income to cover essential expenses like transportation to health facilities and medical treatment, particularly when there are drug shortages at local healthcare centers. For households where parents are alcoholics, the situation is even more dire. Alcohol consumption takes priority over essential needs, as much of the family's income is spent on alcohol, leaving little for food, healthcare, or other basic necessities. Large family sizes often further strain limited resources. This creates a vicious cycle of poverty, where the lack of funds for basic needs affects both the nutrition and health of children, as they are unable to access quality food or health services. Without adequate financial resources, families are often unable to afford a diverse and nutritious diet, putting children at risk of malnutrition and illness.

Low resilience capacities

The community's low resilience is largely driven by external shocks such as climate change and market fluctuations, which undermine the community's ability to cope and adapt to changing circumstances. In low resilience households, the inability to secure adequate income forces caregivers to improvise in order to meet their family's needs. This can include selling off assets like livestock or harvested crops to cover school fees or medical expenses, leaving the family without enough resources for food. Additionally, unpredictable income and limited financial resources often force families to prioritize immediate needs over long-term healthcare or nutritional care, which leads to poor health outcomes and child malnutrition. Families where a member suffers from alcoholism are particularly vulnerable.

GENDER

Heavy workload of women

GBV and unequal distribution of household roles often left women with overwhelming responsibilities, contributing to physical and emotional exhaustion. Men in many households left the bulk of the domestic labor and caregiving tasks to women, leaving them with little time for self-care or for attending to the nutritional needs and healthcare of their children. This gender inequality resulted in a situation where women were forced to take on multiple roles, including farming, cooking, childcare, and income-generating activities, with little support from their partners.

In polygamous households, the situation was further compounded, as a single man was responsible for multiple wives and numerous children, creating an environment of resource strain. The father's inability to provide for all his wives and children forced women to improvise and take on additional responsibilities, which increased their workload. Participants reported, alcoholism leading to men neglecting their responsibilities, including garden work, which further limited the family's ability to produce enough food to sustain everyone. Women, in turn, were forced to take on even more work, contributing to physical strain and poor health.

The farming season (particularly from May to July) was when the workload was heaviest for women in Adilang. During this time, women were deeply engaged in land preparation, planting, and weeding, leaving them with little time for caregiving. Women overburdened with farm work or living with alcoholism neglected

meal preparation or failed to ensure regular, balanced meals for their children.

Low decision-making power of women

Limited involvement of women in household decision-making, especially on issues like family planning, nutrition, and healthcare, exacerbated the challenges of malnutrition and family instability. In many households, particularly in polygamous families, men dominated decisions, leaving women with little agency over their own reproductive health and the well-being of their children. In households with domestic violence and/or lack of shared decision-making, there was poor coordination and support for healthcare and nutrition decisions, which resulted in malnutrition and poor child development. The absence of collective action or community support systems further reduced the community's resilience in the face of economic and environmental challenges.

Low social support of women

Many young mothers in particular, did not receive the necessary support from their partners or families, which made it even harder for them to focus on proper infant care. One of the most prominent issues was the lack of shared roles within households, particularly in polygamous families. In these households, many wives and numerous children struggled to receive the necessary support from their husbands, who were unable to meet the needs of each family member adequately. As a result, mothers in these households were left to carry the bulk of the responsibility, without sufficient support from their partners. This lack of cooperation between mothers and fathers led to poor health outcomes for children, as mothers lacked the necessary emotional and physical support to provide proper care, nutrition, and medical attention for.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The Rapid NDA conducted in Agago District has provided critical insights into the multifaceted and context-specific drivers of malnutrition across the sub-counties of Omiya Pacwa, Adilang, Patongo, and Lira Kato. Through a participatory, qualitative methodology, the assessment has revealed that malnutrition—particularly wasting among children under five—is not primarily driven by food insecurity alone, but rather by an intricate interplay of socio-economic, gendered, health, behavioral, and environmental determinants.

Across all locations, low household resilience capacities, poor intra-household resource allocation, seasonal income volatility, heavy maternal workloads, limited access to healthcare, suboptimal caregiving practices, and entrenched gender norms emerged as major drivers of undernutrition. The categorization has been organized per location in the Annex from the major determinants to the important and to the minor determinants.

The Rapid NDA further underscores the importance of seasonally adaptive, community-centered, and multisectoral nutrition strategies. By elevating community voices and co-creating solutions through validation sessions, the methodology demonstrated its value in shaping context-appropriate, data-informed interventions that are timely, actionable, and sustainable.

This assessment serves not only as a diagnostic tool for the sub-counties of Agago District but also as a scalable model for other resource-constrained settings in Uganda and beyond. The insights generated should inform sub-county and district nutrition action planning, support localized investment in resilience-building, and strengthen the use of qualitative data to drive impactful, people-centered nutrition programming.

Recommendations

The Rapid NDA conducted in Agago District identified a complex interplay of underlying causes of malnutrition across multiple sectors— FSL, GESI, Health and Nutrition, WASH, and Care Practices. The following recommendations are derived directly from these findings and aim to inform the design of integrated, seasonally responsive, and community-driven interventions.

1. Improve Caregiving Practices and Mental Well-being

The gendered division of labour, low social support, and limited decision-making power among women, which in turn contributed to poor maternal well-being and heavy workloads for women, undermine caregiving capacity. There was also a gap in knowledge and skills identified, particularly among adolescent mothers, contributing to poor care and feeding practices. Programs should focus on building the knowledge, skills, and self-efficacy of individuals and communities to overcome barriers to adopting optimal caregiving behaviours and transforming harmful social and gender norms. Key influencers such as men, grandmothers, and community leaders must be actively engaged to foster social cohesion and create an enabling environment for sustained social change. Participatory tools should be employed to support context-specific learning and behaviour change.

2. Strengthen Household Resilience through Income Diversification and Equitable Resource Allocation

Low household resilience and unequal resource allocation emerged as key determinants of malnutrition. Future interventions should promote income diversification through climate-resilient agriculture, support for small-scale enterprises, and vocational training. These efforts should be complemented by improved access to formal financial services. Addressing inequitable power dynamics is critical to increasing household resilience —social and behaviour change strategies can help shift harmful norms and promote more equitable resource allocation.

3. Improve Access to and Utilization of Quality Health Services

Limited access to and utilization of health services continue to negatively affect maternal and child health outcomes. Interventions should address both geographical and financial barriers and improve the quality of services, including building trust between the community and service providers through community engagement and accountability mechanisms. Cultural misconceptions, especially surrounding family planning, must also be addressed through social behavioural change approaches like dialogues, community conversations or mass media campaigns. Increased investment is needed to strengthen addiction support and integrate mental health and psychosocial support into maternal and child health services, recognising the essential link between caregiver well-being and child nutrition.

4. Design Seasonally Adaptive Interventions

Seasonal fluctuations in income, food availability, accessibility of markets and workloads were found to significantly affect nutrition outcomes. Programs should incorporate seasonal calendars and early warning systems to inform the timing and nature of interventions. This should include increased investment in anticipatory actions to strengthen community capacity to mitigate, respond to, and recover from seasonal shocks and stresses.

5. Address Systemic and Seasonal Barriers to Food Access

Food insecurity, though not the primary driver, remains a major constraint to nutrition outcomes. Programs should invest in strengthening local food systems by improving market access, supporting community-level food storage, and strengthening the resilience of food systems in partnership with permanent actors and local stakeholders to ensure year-round availability and access to diverse, nutritious food items.

6. Invest in Hygiene and Sanitation to Reduce Disease Burden

Inadequate WASH practices contribute indirectly to child malnutrition by increasing exposure to disease. Hygiene promotion should be mainstreamed into nutrition programming, with an emphasis on handwashing, food hygiene, and clean child play spaces even at the household level. Investments should also support latrine construction, safe water storage solutions, and menstrual hygiene management to create healthier household environments and reduce preventable disease burdens.

ANNEXES

ANNEX A: OMIYA PACWA DATABASE

	DETERMINANT	SUMMARY POINTS	LINKAGES W/ OTHER DETERMINANTS
A	**Low access to quality diet**	• Foods like rice only eaten during the festive season • Low production of food in the home for the many children • During the farming season, households will usually eat once a day	• Low access to markets • Non-optimal mental health of the mother • Heavy workload of women
B	**Low decision-making power of women**	• Women make decisions on what to eat however if it involves meat, the men are requested for permission to cut animals • Women have to request men for permission to sell off the harvest even if it's the women that farmed. Women are not allowed to sell animals without permission from the men • During pregnancy, the mother in law kept all the money made from the casual labour and she had to seek permission if she wanted to spend the money • Women are not allowed to speak out about their spouses, even when there is no support that they provide. Husbands demand to have control over the money that the wives make. If the woman does not allow the man to control the money made, it erupts in violence	• Non-optimal wellbeing of caregivers • No access to markets • No access to quality diet • Low social support for women

C	**Heavy workload of women**	• Women do all the chores at home, even after coming back from the garden while the men do not support • Men after comig back from the garden will proceed to sit with their peers • Women are also expected to give birth to children Mothers spend a lot of time in the garden, during the farming season and do not breast feed their children all the time • Women will prepare one meal for the household during the farming season • Even during pregnancy at 8 months a mother was going to the garden. In the past there was only one season for farming when people fully engage in farm work but currently the climate has changed unreliably impacting workload	• Low social support for women • Low decision making power of women • Non-optimal breast feeding practices • Low-mother to child interactions • Low access to quality diet • Non-optimal complementary feeding practices • Low nutrition status of women
D	**Non-optimal mental wellbeing of the caregiver**	• Mother worried about her child who is malnourished • The mother's condition of hypertension and the health of the child • Husband not providing during pregnancy	• Low access to quality diet • Low access to revenues
E	**Low social support of women**	• Women have saving groups • Women who drink alcohol are not supported in the community • Women support their fellow women to the hospital when they are ill	• Low reilience capacities • Low revenue sources • Low decision making power of women
F	**Low birth-spacing**	• Husbands do not allow their wives to use contraceptives and require them to have sex	• Low use of health services • Low decision making power of women
G	**Low access to revenues**	• Mothers have to make bread and dig in gardens to make money for the household • Mother not being able to get money for her daily needs during pregancy, has to conduct casaul labour even during preg. Main source of income is farming • Elephants destroy crops which are the main source of income	• Low decision making power of women • Non-optimal mental wellbeing of caregivers • Heavy workload

H	**Low resilience capacities**	• Animals are sold at the household level to make money for health facility emergencies • If a household does not farm they will not be able to have money or food. Husbands always drinking and do not take care of the family - family is losing weight	• Heavy workload of women • Low access to quality diet
I	**Low access to markets**	• Prices flactuate in the market and sometimes there is not enough money to buy food when it is expensive. Lack of variety of foods in markets	• Low access to revenues
J	**Non-optimal breastfeeding practices for children <6m**	• After delivery the mother was not breast feeding because the mother was admitted • After delivery gave the child milk from the cow because the mother was not able to breast feed since she was admitted • Mother tried to consume local herbs to help with low breast milk production • Breast fed baby after 24 hours • From the time of delivery the child was not able to breast feed as they were put in intensive care for 3 months • Mother living with the mother in law who was not supporting her, instead making her go to the garden	• Non-optimal complementary feeding practices • Mental wellbeing of the mother • Low social support for women
K	**Non-optimal complimentary feeding practices <23m**	• Child given long life milk at 3 months • Child given Okra before 6 months • Child not given a variety of foods, as they are not available • Child was introduced to complementary feeding when the child was 10 months. Low food intake for children and feeding practices of children due to workload	• Non-Optimal breast feeding practices • Low access to quality diet • Non optimal mental wellbeing of mother
L	**Low quality of interactions between a child and a caregiver**	• Child does not want to associate with other Children • Mother takes child away to be able to cook for the household • Child is always crying. Women are unable to properly attend to children due to workload	• Heavy workload of women • Low access to quality diet

M	**Non-optimal personal hygiene practices**	• Personal hygiene is meant for the girls and not the boys • Men are always drinking alcohol and do not have time for personal hygiene • It is the role of women to clean the children • Girls who bathe regularly get married early and it is a sign of her coming from a clean home • During the farming season, farmers should remain dirty so that the crops will have high yield	• Heavy workload of women • Early marriages • Low decision making • Power of women • Low social support for women
N	**Non-optimal sanitation practices**	• People living on hired land so do not construct pit latrines Pit latrines are expensive to construct	• Non-Optimal personal hygiene • Low access to revenue
O	**Non-optimal food and environmental hygiene practices**	• Fruits and vegetables given to children when the family gets back from the garden are not washed • Utensils that are used for feeding children when caregivers come back from the garden are not washed and are used for preparation of food • The utensils that are used to give let over food to children in the morning are not washed	• Heavy workload of women • Non-optimal personal hygiene • Low-decision making power of women
P	**Non-optimal nutritional status of women**	• Family members asked her to eat however she was not eating • No appetite because of stress during pregnancy. Mother was not well and not eating the food that she was given • Mother goes to the garden, and gets back to cook in the afternoon. Women will eat once a day during the farming season • Mother was not eating well because there was not enough food in the home	• Low access to quality diet • Low access to revenues • Non optimal mental wellbeing of caregiver
Q	**Low use of health services**	• Mothers spend time drinking alcohol and this makes them get intoxicated and they are unable to notice if their children are sick • Family planning is making mothers deliver children with birth defects • Children of severe malnutrition - when children with severe malnutrition are tried to be treated with herbal medicine for too long and can not conform with the treatment, they perceive that child to be caused and eventually conduct a ritusl and get a way of throwing that child away	• Low quality of interactions between mother and child • Low birth spacing

R	**Inadequate accessibility, availability and quality of water**	• 2 out of 7 boreholes working in the village • Long cues at the boreholes • Women and people with diability are not given special treatment	• Non-optimal sanitation practices
S	**Low access to health services**	• Need income to take children to hospital • Children requently falling sick after treatment from the health Centre • Many children in the home to take care of and there fore stepmothers prioritise their own children	• Low access to revenues • Low access to quality diet • Low birth Spacing • Low resilience capacities

ANNEX B: LIRA KATO DATABASE

	DETERMINANT	SUMMARY POINTS	LINKAGES WITH OTHER DETERMINANTS
A	**Low access to revenues**	• The main sources of income in the community include the selling of firewood, offering labor, sale of farm produce, and the sale of animal. These sources vary over the course of the year, with lower income during the dry season. The community faces several challenges related to farming, including changes in weather patterns, crop destruction by wild animals such as elephants, prolonged dry spells, weed infestations, and a lack of improved seed varieties. Women generate income through small-scale businesses, such as selling alcohol, vegetables and crops like tomatoes, beans, onions etc offering casual labour in people's gardens, and working as hairdressers in salons	• Low resilience capacities
B	**Low access to health services**	• Quality of care: Lack of necessary medications at the local health facility; Negative attitude of health workers • Financial barriers: transportation costs or medical fees. Polygamy in some families were some men have many wives and children which makes it challenging for all people to access health services • Geographical barriers: HS far away from some remote villages with a lack of transportation options	• Low access to revenue • Low social support of women
C	**Low social support of women**	• Very few men accompany their wives to the health facility as they don't take health as a priority. One women reported after spending hours in the garden, she would come home and take on household chores as well, having to handle everything on her own	• Low access to health services • Low use of Health services • Non-optimal mental wellbeing of the caregiver

D	**Heavy workload of women**	• Heavy workload (often having to travel far to farms), balancing multiple tasks like garden work, household chores, and taking care of children. Workload is more during the farming season (planting in March-April, weeding in May-July) hence less access to health services while in the non-farming season, workload is less hence more access to health services	• Low access to health services • Low use of Health services • Low social support of women • Non-optimal mental wellbeing of the caregiver • Non-optimal breastfeeding practise for children
E	**Low birth-spacing**	• Husbands may not allow the use of family planning, Polygamy in some families were some men have many wives and children	• Low use of health services
F	**Non-optimal mental wellbeing of the caregiver**	• Participants reported persistent sadness and depression due to mistreatment (domestic violence) by their husband (driven by alcoholism) and lack of support from in-laws.	
G	**Low resilience capacities**	• People sell most food they grow while not keeping little for home consumption. During lean periods, meal frequency decreases, often limited to green vegetables. In contrast, post-harvest periods allow for a minimum of two meals per day with a greater variety of foods. Men were reported to sell farm produce and spend the money on alcohol without including women in decision-making	• Low access to market • Low access to quality diet • Heavy workload of women

H	**Low access to quality diet**	• The limited income of households makes it difficult to afford essential food items, eat fish once a year because I don't have the money to buy it, even though I wish I could eat it more often. People often eat the same type of food in all seasons. Food is usually got from households' garden and the market. Households often rely on kitchen gardens and farming to access food. Food scarcity, lack of money to buy additional food. During the rainy season (May-August), food availability is limited, unlike the post-harvest period when there is more food. Over the last 10-15 years, there was generally a higher quantity of food available	• Low access to revenue • Low birth spacing • Low access to revenue • Low birth spacing • Non-optimal mental wellbeing of the caregiver • Low decision making power of women • Low access to health services
I	**Low use of health services**	• There is a lack of interest in some health services, such as family planning due to factors such as limited knowledge, concerns about side effects, and fear of certain health workers. However, services like malaria treatment are more widely accepted. The community believes that the services offered at health facilities are the best. However, due to access issues they often seek the services of traditional birth attendants	• Low access to revenue, • Low birth weight
J	**Low access to markets**		• Low social support of women
K	**Non-optimal breastfeeding practices for children <6m**	• Difficulties with low milk production; While some were advised about the benefits of colostrum shortly after delivery, others received incorrect information and experienced delays in initiating breastfeeding due prolonged separation after birth	
L	**Low decision-making power of women**	• Low decsion making power regarding the number of children income from agriculture is typically controlled by men	
M	**Non-optimal complimentary feeding practices <23m**	• The introduction of complementary feeding varied among mothers, with some starting early, even before six months, while others waited until six to eight months, depending on the child's readiness	

N	**Low birth weight**	• Low birth weight children are most common during many rainy seasons because work is demanding	
O	**Non-optimal nutritional status of women**	• Low access, limiting dietary variety and nutrition	
P	**Inadequate accessibility, availability and quality of water**	• Inadequate access to clean water leading to poor personal hygiene	
Q	**Non-optimal sanitation practices**	• During the rainy season, latrines are often filled with water, making them unusable. The high cost of construction materials for building latrines is a challenge. Households are not able to access safe water as well	

ANNEX C: PATONGO DATABASE

	DETERMINANT	SUMMARY POINTS	LINKAGES W/ OTHER DETERMINANTS
A	**Low access to health services**	• Low access to health service because the health facility is far from their homestead, they are mostly engaged in farming during rainy season so do not have time (do not prioritise) attending HF for ANC, immunization etc (this the season when people also temporally migrate to distance farm land approximately 40kms a way from the health facilty). There is often waiting time at the facility and drug stock outs (quality of care, geographical and temporal barriers)	• Low utilization of health services

B	**Low use of health services**	• Low use of health services due to waiting time at the facility, some members of the community still strongly desire the use of traditional healer and local medicine this is most common among the elderly who sometimes influence the young mothers to use local medicine, lack of medicine at Health facilities for treament and at time the health staff would tell them to buy drugs from clinic and at times they do not have money for that. During ANC and maternal care services men do not want their wife to be attendented by a male doctor. Women are required to bring delivery kits to HF, but not supported by their husbands to get them, mothers fear health workers shouting at them if they turn up without the kits. The community still have a negative perception towards using family planning services	• Lack of social support and Low access to health services.
C	**Low birth-spacing**	• Traditional belief in the community that married women role in the home is to give birth and multiple clan members this results to low birth spacing. There is pressure from mother in law who wants their son to produce rapidly. Men not want their wives to use family planning. Keep having children till a boy is born. Miss information about family planning side effects	• Low decision making power by women • Lack of social support • Non optimal breast feeding practices
D	**Low birth weight**	• Lack of appetite for food during pregnancy results to giving birth to a child with low birth weight	• Low nutritional status of women
E	**Non-optimal nutritional status of women**	• Contributor to low birth weight seen in the community	
F	**Non-optimal mental wellbeing of the caregiver**	• GBV (cases of GBV reported after men drink), extra marital relations/polygamy which common practice e.g men do not want to be questioned by women for marrying more than one woman. People feel bad or ashamed when their children are called names linked to malnutrition	• Lack of social support, and low access to health services.
G	**Non-optimal breastfeeding practices for children <6m**	• Women fear breastfeeding children at the workplace, so children are left to bottle feed with grandmothers. teenage girls who gets pregnants at an early age fears breasfeeding their childrn in public places. Reported issues with low production of breastmilk	

H	**Non-optimal complimentary feeding practices <23m**		• Low resilience capacity, Low nutritional status of women
I	**Low quality of interactions between a child and a caregiver**		
J	**Low access to quality diet**	• Low quality diet because some people can not afford to buy food which has high nutrient like fish,goat meat,egg,orange flesh potatoes,etc. Dependent on what they grow and not have access diverse foods, often only eating one food group from to June to Late sept.	• Low access to revenue, Low nutritional status of mothers
K	**Low access to revenues**	• Animals/cattle which are usually sold for income have been looted therefore, households are not able to generate income through sale of animals. Too much sunshine with low rain fal dried up most of the crops which resulted to low yield which wasn not adequate enough to sustain many children whos demand for food hight	• Low resilience capacity, Low access to health services, Low utilization of health services.
L	**Low access to markets**		• Low acccess to quality diet, low access to revenue
M	**Low resilience capacities**	• Men tend to sell all the food being harvested indorder to drink alcohol, living the family with no food to eat.and sometimes the sell the food in the house is used to pay for school fees of their children ,Lack money for purchasing the household necessities. and mothers have to surrender their food to the children and go hungry	• Low access to revenue,
N	**Inadequate accessibility, availability and quality of water**		

O	**Non-optimal sanitation practices**		
P	**Non-optimal personal hygiene practices**		
Q	**Non-optimal food and environmental hygiene practices**		
R	**Heavy workload of women**	• Food and production has been left on women and at the same I have to look for food for my children and sometimes am weak do not eat the whole day. Men in our community think that domestic work is supposed to be done by women-so we struggle with a lots of work for us afford all the basic needs. The workload for women is higher in the households where the husbands suffer from alcoholism and gambling addiction	• Low nutritional status of women, low social support
S	**Low decision-making power of women**	• Women have low-decision making power around use of family planning services and birth spacing	

ANNEX D: ADILANG DATABASE

	DETERMINANT	SUMMARY POINTS	LINKAGES W/ OTHER DETERMINANTS
A	**Low access to health services**	• The challenges of keeping children healthy stem from several factors. Income to facilitate transport to health facilities is often unavailable, making access difficult when treatment is needed. Even when families reach health centers, frequent drug stock-outs mean they must purchase medicine from drug shops, which limits access to quality healthcare. Alop Health Center II faces significant issues, including inadequate drugs and equipment, too few health workers, and prolonged waiting times, causing many patients to seek care from unqualified drug shops. These challenges are exacerbated by increased participation in social-cultural activities, which reduces the time and opportunity for families to access health services. In the past, health facilities were more accessible as fewer socio-cultural activities occurred during periods of rebellion. Today, these activities, combined with the lack of adequate resources and staffing at health centers, create significant barriers to ensuring children receive the healthcare they need	• Low access to income sources • Low use of health services

B	**Low use of health services**	• Alop Health Center II faces significant challenges, including serving a large population with limited drug supplies from the national drug stores. Low birth spacing due to poor utilization of family planning methods, exacerbated by men's reluctance to participate, further strains families. During the farming season (May to August), even health workers report late for duties as they are involved in cultivation. Alcoholism contributes to malnutrition by fueling gender-based violence and reducing the practice of family planning. Poor child spacing and missed immunizations have left many children malnourished and unwell. Households with many children, low birth spacing, and weak or elderly caregivers face increased demands, often unable to provide adequate care. Small, malnourished women are more likely to give birth to underweight children, especially in homes affected by domestic violence, unhappiness, and a lack of medical care or adequate food. These issues are worsened by mothers consuming alcohol during pregnancy, HIV-positive mothers not adhering to medical advice, and unstable relationships, all contributing to a cycle of poor health and well-being	• Low Birth spacing • Low access to health services • Low-Decision making power of women • Non-Optimal mental wellbeing of caregiver • Heavy workload of women
C	**Low birth-spacing**	• Low involvement of women in decision-making, particularly regarding family planning, significantly impacts household well-being. Polygamous households, often with large family sizes, strain resources, as one man cannot adequately provide for multiple wives and children. This situation forces women to take on heavy workloads. Low birth spacing, driven by poor family planning practices, contributes to non-optimal breastfeeding and malnutrition in children, particularly when immunizations are missed. Alcoholism also plays a role in malnutrition by fostering gender-based violence, reducing family planning use, and undermining food security, as men may neglect garden work while women struggle to compensate. Polygamous homes and those with limited shared decision-making often experience disorganized family dynamics, further affecting health and nutrition. Additionally, large family sizes in polygamous setups make access to health services difficult, leaving many vulnerable, especially children, to malnutrition and illness. These factors create a cycle of poor health, malnutrition, and instability	• Low-Decision Making power of women • Non-Optimal Breast feeding practices <6m • Heavy Workload of women • Low-use of health services

D	**Low birth weight**	• Polygamous families often experience low birth spacing, as one man cannot adequately support multiple wives, leading to strain on resources and poor family planning. Small and malnourished women are more likely to give birth to underweight children, a problem exacerbated in homes affected by domestic violence, lack of happiness, and the absence of family planning. Large households with many children face a cycle of poor health and well-being, compounded by inadequate access to medical care, food insecurity, and maternal alcohol consumption during pregnancy. These challenges are heightened when HIV-positive mothers fail to follow medical advice or when women have unstable relationships, frequently changing partners and having children across different homes, all of which contribute to poor maternal and child health outcomes, including low birth weight	• Low birth spacing • Non-Optimal nutrition status of caregiver • Low-use of health services • Low access to health services • Low access to quality diet • Non Optimal Mental wellbeing of mother
E	**Non-optimal nutritional status of women**	• Very small and malnourished women are more likely to give birth to smaller children, and this challenge is often compounded in homes where domestic violence occurs, where women experience a lack of happiness or joy, where family planning is not practiced, and in households with many children, all of which contribute to a cycle of malnutrition	• Non -optimal mental wellbeing of caregiver • Low access to quality diet • Low use of health services
F	**Non-optimal mental wellbeing of the caregiver**	• Households affected by domestic violence often struggle to provide adequate food and healthcare for children, leading to poor health outcomes. Small and malnourished women are more likely to give birth to underweight children, a problem worsened in homes where domestic violence, unhappiness, lack of family planning, and large family sizes create a cycle of poor health and well-being. Children face additional challenges when they lack proper care, are not breastfed up to two years, or do not receive timely and adequate nutrition. These issues are further exacerbated when parents fail to seek medical care for sick children, when mothers separate from fathers during a child's early years, or when parental relationships are strained. Furthermore, children placed under the care of non-parents often miss out on the attention and nurturing essential for their overall well-being, compounding the risks to their health and development	• Low access to quality diet • Low birth weight • Low use of health services • Non-optimal breast feeding practices <6m • Non-Optimal complementary feeding for children <23 months

			• Low social support for women
G	**Non-optimal breastfeeding practices for children <6m**	• Households with low birth spacing face significant challenges, often leading to non-optimal breastfeeding practices and malnutrition. Poor breastfeeding, lack of exclusive breastfeeding, and inadequate complementary feeding practices are major contributors to malnutrition in the community. Children who lack proper care, are not breastfed for up to two years, or do not receive timely and adequate nutrition are particularly vulnerable. These challenges are worsened when parents fail to seek medical attention for sick children, when mothers separate from fathers during a child's early years, or when parental relationships are strained. Additionally, children placed under the care of non-parents often lack essential parental attention and nurturing, further impacting their health and well-being. These compounded issues create malnutrition in children	• Low birth Spacing • Malnutrition in Children • Low-use of health services • Low-social support for women • Non-optimal mental wellbeing of caregiver
H	**Non-optimal complimentary feeding practices <23m**	• Households with early marriages whereby the child gives birth to a baby but cannot take good care of the child due to lack of experience, Poor breastfeeding practices, no exclusive breastfeeding, non-optimal complementary feeding practices are causing malnutrition in the community	• Low-decision making power of women • Heavy workload • Non-optimal breastfeeding practices • Malnutrition in Children

I	**Low quality of interactions between a child and a caregiver**	• Households with early marriages, where young mothers lack the experience to properly care for their children, face significant challenges. This is especially evident during the months of May to July, when caregivers are burdened with heavy workloads and have little time to tend to their children. During this period, food supplies are often inadequate, further compromising the health and nutrition of children. Homes with poor feeding practices, where children are not taken to the hospital when sick, lack adequate parental supervision, and experience domestic violence, struggle to ensure the health, safety, and well-being of their members, perpetuating cycles of poor outcomes for both children and caregivers	• Low-decision making power of women • Non-optimal mental wellbeing of caregiver • Heavy workload of women • Non-optimal Nutrition status of women
J	**Low access to quality diet**	• Households experiencing domestic violence, large family sizes, and low-income levels face significant challenges in providing adequate care and nutrition. Caregivers in such homes struggle to produce food and seek healthcare for children, resulting in poor outcomes. During the farming season (April to June), inadequate food intake is common due to the focus on agricultural activities, while from August to February, food availability improves with the harvest. However, households often sell most of their crops without reserving enough for consumption, exacerbating food insecurity. Women, burdened with farming tasks, have less time to care for their children, leading to untimely eating habits and inadequate supervision. Additionally, homes where families lack transport to health facilities, fail to seek medical care, or face alcohol abuse during pregnancy face heightened health risks, including low birth weight. These challenges are compounded in families with unstable relationships, multiple children, and women with little support, further straining resources and stability	• Low-birth spacing • Low access to income sources • Heavy workload of women • Low use of health services • Low birth weight • Low social support for women • Low birth spacing

K	**Low access to revenues**	• Households with low-income levels face significant challenges in meeting their families' basic needs, including transport to health centers, treatment costs when drugs are unavailable, and access to quality food. Homes where parents are drunkards worsen this issue, as much of their income is spent on alcohol, leaving little for food and healthcare. Limited financial resources mean families cannot afford diverse and nutritious diets, putting children at risk of malnutrition. Families often sell the little food they have to cover school fees, leaving children without adequate nutrition and struggling to afford education. The lack of sufficient income creates a cycle of food insecurity and poor health, making children more susceptible to illness and malnutrition, women have to resort to causal labor to generate income	• Low access to health services • Low acess to quality diet • Heavy workload of women
L	**Non-optimal sanitation practices**	• Children can be kept healthy practicing good sanitation and hygiene of the children and the surroundings at large Homes where women are unwilling or unable to cook, lack enough food, and fail to maintain cleanliness often struggle with poor health and nutritional outcomes, creating an unhealthy living environment for the entire household	• Non-optimal personal hygiene • Non-optimal food and • Environmental hygiene
M	**Non-optimal food and environmental hygiene practices**	• Homes where women are unwilling or unable to cook, lack enough food, and fail to maintain cleanliness often struggle with poor health and nutritional outcomes, creating an unhealthy living environment for the entire household	• Low access to quality diet Non-optimal sanitation practices
N	**Heavy workload of women**	• When parents leave children with caretakers, the quality of care may be compromised, negatively affecting the children's well-being. In households with an alcoholic mother or women overburdened with farm work, the time and effort needed to prepare nutritious meals are often neglected. This issue is further compounded in polygamous families, where limited resources and attention are stretched thin, leading to poor health and social outcomes for children. Access to health facilities has also become more difficult compared to the past when fewer responsibilities allowed for easier access. Today, families are occupied with extensive workloads, further limiting their ability to seek timely medical care	• Low quality of interactions between care taker and child • Low access to income sources/revenue • Low access to quality diet • Non-optimal mental wellbeing of caregiver

			• Low decision makingpower of women • Low use of health services
O	**Low decision-making power of women**	• Low involvement of women in decision-making, especially regarding family planning, significantly affects household well-being. In households with high levels of domestic violence and alcoholism, the quality of care for children is severely compromised. Polygamous families, with large household sizes, often face resource shortages, as one man cannot provide adequately for all wives and children. This forces women to take on additional workloads to meet household needs, further straining their capacity to care for their families. Alcoholism contributes to these challenges, with men unwilling to participate in productive activities like garden work, and women becoming reluctant to contribute, undermining food security and stability. These issues are particularly pronounced in polygamous households and those lacking shared decision-making, resulting in disorganized family dynamics, poor nutrition, and an ongoing cycle of instability	• Non-optimal mental wellebing of caregiver • Low quality of interactions between caregiver and child • Low social support for women • Low access to quality diet • Low access to income sources
P	**Low social support of women**	• When roles are not shared within households, productivity decreases, leading to reduced access to quality foods. The lack of cooperation between mothers and fathers further compromises the health and well-being of children, as mothers often lack the support needed to provide proper care. Children face significant challenges when they are not breastfed up to two years, do not receive timely nutrition, or are neglected due to strained parental relationships or separation. These issues are further exacerbated when parents fail to seek medical care for sick children or when children are placed under the care of individuals other than their parents, leading to insufficient nurturing. Additionally, the lack of male involvement in healthcare decisions, such as accompanying their wives to health facilities, reflects a low prioritization of health, further worsening outcomes for families	• Low access to quality diet • Low access to health services • Low use of health services