





Baseline Study Report Somalia

GROW ENRICH Global programme to improve maternal and child health and nutrition in East Africa through strengthening health and nutrition systems and operationalising gender-sensitive health and nutrition rights strategies in Kenya, Somalia and Tanzania

July 2024

Four-Year (2023 to 2027) Multi-Country Project, Implemented across Kenya, Somalia and Tanzania

The project is funded by German Federal Ministry of Economic Cooperation and Development (BMZ) and World Vision Germany

ACKNOWLEDGEMENT

The consultant wishes to thank all people and institutions who contributed to the successful conduct of the four assessments. We are most grateful for the support World Vision Somalia team, for all the support provided during the preparation, training, and field activities of the survey.

We would like to acknowledge Allan Oniba Design, Monitoring & Evaluation Manager, Mohamed Hassan Design, Monitoring & Evaluation Coordinator, Nafisa khalif Health &Nutrition Manager, for the support they extended to us during the preparation and implementation of this baseline exercise. We would like to acknowledge the roles of the assessment teams including the coordinators, supervisors, team leaders, enumerators, and community field guides, and all the parents/caregivers who provided valuable information to the survey team and participated in the assessment. Special thanks to Alice Wairia-Regional MEAL Manager, Alice Yugi- Regional Program Manager and Naemi Heimerdinger-Senior MEAL Advisor, for their support and technical advice during this exercise.

Most sincerely thanks also go to donor, for the generous financial support to conduct this baseline study. To all not mentioned here, and those may not have been mentioned but facilitated the completion of this work, please accept my sincere thanks for whatever contribution that you made towards this GROW ENRCH baseline survey.

AFFIRMATIONS

"Except as acknowledged by the references in this paper to other authors and publications, the evaluation described herein consists of our own work, undertaken to secure funding, implement the activities, describe and advance learning, as part of the requirements of World Vision's Design, Monitoring and Evaluation Learning System. Information and data must be used only with the consent of World Vision."

VISION QUEST CONSULTANTS

Table of Contents

A A A E	CKNOW FFIRMA ⁻ BBREVIA KECUTIV	LEDGEMENT TIONS ATIONS AND ACRONYMS	i ii vii viii
	Methodo	blogy	viii
1	Summar INTR	y of Key findings ODUCTION	. <i>ix</i> 1
	1.1	Current Humanitarian Situation in Somalia	1
	1.2	Health and Nutrition Situation	1
	1.3	GROW ENRICH Project	2
2	1.4 Base	Baseline Objectives and Scope line Methodology	2 3
	2.1	Study design	3
	2.2	Sample size and sampling strategy	3
	2.3 2.3.1 2.3.2	Data collection methods and tools Quantitative Survey methods and tools Qualitative approach	6 6 6
	2.4	Summary of data collection Methods	7
	2.5 2.5.1 2.5.2 2.5.3	Methods and tools for data analysis Quantitative Data analysis Assessment of anthropometric indicators Qualitative Data Collection	10 10 11 11
	2.6	Quality assurance in data collection and analysis	12
	2.7	Limitations and Risk Management	12
3	2.8 2.8.1 2.8.2 BASE	Compliance of standards and data protection Standards Data Protection ELINE FINDINGS	13 13 13 13
	3.1	Survey Completeness	14
	3.2 3.2.1 3.2.2	Key Socio-Demographics of Households and respondents Household characteristics Respondents' characteristics	<i>14</i> 14 15
	3.3 3.3.1 natio 3.3.2 3.3.3 3.3.4 gove 3.3.5 natio nutri	Results around Key outcome indicators Overall Outcome Indicator 1: % increase of funding for health and nutrition services from nal & County budgets Overall Outcome Indicator 2: % of children under five years of age with reduction in wasting Overall Outcome Indicator 3: % of children under 5 years with reduction in stunting Outcome Module 1 Indicator 3: % Increase of funding provided annually by sub-national rnments for local health and nutrition facilities in target districts Outcome Module 1 Indicator 4: % increase of key government officials at national and sub- nal levels who understand and actively advocate (participate) for the application of basic tion and health rights as enshrined in international and local lws	 17 17 17 20 22 23

	3.3.6	Outcome Module 2 Indicator 1: % of children < 6 months who are exclusively breastfed (EB 24	F)
	3.3.7	Outcome Module 2 Indicator 2 % of women aged 15-49 who used at least 4 antenatal	26
	exan 3.3.8	Output 2.1 Indicator 1: # of health facilities in target districts providing gender-sensitive	26
	prim	ary care in nutrition and health and SRHR	30
	3.3.9	Output 2.1 Indicator 2 # of increase yearly nutrition & SRHR consultations in H&N facilitie	es in
	proje	ect areas	30
	to pr	event monitor and address malnutrition from a gender perspective	32
	3.3.1	Outcome Module 3: Indicator 1 % of children aged 6-23 months receiving minimum	
	acce	ptable diet	33
	3.3.1	Output 3.1 Indicator 1# of HH growing nutrient-rich crops	36
	3.3.1	Output 3.1 Indicator 2 % of HH with acceptable HH Dietary Diversity Score (HDDS)	37
	3.3.1 in th	e first 1000 days as per MIXCE minimum criteria	on 70
	3.3.1	5 Output 3.2 Indicator 2 # and percent of primary caregivers with improved knowledge a	40 nd
	prac	tice in IYCF practices	41
	3.3.1	6 Output 4.1 % increase in local CSO capacity assessment score	43
	3.4	Access to Health Services	46
	3.4.1	Access time and means of transport	46
	3.4.2	2 Community health service	47
	3.5	Knowledge Attitudes and practices on: Access to Water, Sanitation and Hygiene	47
	3.5.1	Water Access	47
	3.5.2	2 Access to sanitation	48
	3.6	GESI-Assessment	49
	3.6.1	GESI data collection	49
	3.6.2	2 GESI Analysis	49
	3.6.3	3 GESI Findings	49
	3.6.4	GEST COnclusion	6/
4	CON		70
-	4.1	Child health and nutrition	70
	4.2	Maternal health	71
	12		71
5	REC	OMMENDATIONS	72
6	Refe	rences	75
7	ANN	IEXES	76
	7.1	Annex 1: Anthropometric Plausibility check	76
	7.2	Annex 2: Sampling units	76
	7.3	Annex 3: Household survey tool	77
	7.4	Annex 4: Analysis of IYCF knowledge and skills indicator	77
1:	ct of E	guros	
LI Fi	SLUI FI σιικο 1·	gui es Beneficiaries versus sample nonulation	Ę
г I Г:	Sure 1.		5

•		
Figure 2: Main source of income.		15
Figure 3: Difficulties reported in	respondents living with disability	16

Figure 4: Respondents Education level	16
Figure 5: Trends analysis of stunting 2017 0 2023 (FSNAU)	21
Figure 6: Breastfeeding Indicators	25
Figure 7: Exclusive breastfeeding by age	26
Figure 8: Over 4 ANC visits across districts	28
Figure 9: Antenatal services received	28
Figure 10: Minimum acceptable diet by districts	36
Figure 11: Dietary diversity categorization by districts	
Figure 12: HDDS category by livelihood zones	
Figure 13: Primary caregivers with improved knowledge and practice in IYCF practices	42
Figure 14: Household source of drinking water	47
Figure 15: Access to sanitation facilities.	48
List of Tables	
Table 1: Summary of baseline indicators	xii
Table 2: Sample size calculation for anthropometric measurements	4
Table 3: District level Sample Distribution	5
Table 4: Summary of FGDs and KIIs	7
Table 5: Summary of data collection methods	8
Table 6: Distribution of age and sex of sample	14
Table 7: Mean z-scores, Design Effects and excluded subjects	14
Table 8: Household size and proportions by gender	14
Table 9: Prevalence of acute malnutrition based on weight-for-height z-scores (and/or oed	dema)
and by sex	18
Table 10: Prevalence of acute malnutrition by age, based on weight-for-height z-scores an	ld/or
oedema	18
Table 11: Prevalence of wasting across districts	19
Table 12: Prevalence of acute malnutrition based on MUAC cut off's (and/or oedema) and	by sex
	19
Table 13: Prevalence of underweight based on weight-for-age z-scores by sex	20
Table 14: Prevalence of stunting based on height-for-age z-scores and by sex	21
Table 15: Prevalence of stunting by age based on height-for-age z-scores	22
Table 16: Prevalence of stunting across districts	22
Table 17: Antenatal care results	27
Table 18: Postnatal care results	29
Table 19: SRHR consultations in WVI supported facilities	31
Table 20: Nutrition services	31
Table 21:CBOs combating malnutrition while incorporating gender-specific needs and cha	allenges
	32
Table 22: Dietary diversity for children 6-23 months	34
Table 23: Minium Meal Frequency	35

Table 24: Minimum Acceptable diet	35
Table 25: Access to garden and farming land	37
Table 26: Food consumed a day prior to the survey	
Table 27: Minimum dietary diversity score categories	
Table 28: adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF	minimum
criteria	40
Table 29: IYCF knowledge versus practices	41
Table 30: Capacity Assessment Scores	44
Table 31: Access time and means of transport	46
Table 32: Handwashing times	48
Table 34: Binary logistic regression for wasting	71
Table 35: Recommendations	73

ABBREVIATIONS AND ACRONYMS

ANC	Antenatal Care
CHW	Community health worker
CHV	Community health Volunteer
CBO	Community based organization
CSO	Civil Society Organization
CI	Confidence Intervals
FGD	Focus group discussion.
GAM	Global Acute malnutrition
GESI	Gender Equality and Social Inclusion
HAZ	Height for Age Z scores
HH	Household
IFAS	Iron Folic Acid Supplementation
IPC	Integrated Phase Classification
KII	Key Informant Interview
МОН	Federal Ministry of Health
MUAC	Mid-upper arm circumference
NGO	non-governmental organization
ODK	Open Data Kit
OTP	Outpatient Therapeutic Programme
PPS	Proportion to population size
SAM	Severe Acute Malnutrition
SHF	Somalia Humanitarian Fund
UNICEF	United Nations Children Fund
WAZ	Weight for Age Z Score
WHO	World Health Organization
WHZ	Weight for Height Z scores

EXECUTIVE SUMMARY

Project Background

GROW ENRICH Global program aims at improving maternal and child health and nutrition in East Africa through strengthening health and nutrition systems and operationalizing gender-sensitive health and nutrition rights strategies in Kenya, Somalia and Tanzania. The Global Programme will address the root causes of malnutrition and gender inequality in the three target countries through a multi-level approach at micro, meso and macro levels. It will build on proven strategies for implementing key health and nutrition interventions through strengthening local health and nutrition systems, targeted advocacy and building the capacity of civil society and state actors at sub-national, national and regional/continental levels.

Baseline objectives

The overall objective of the baseline study was to provide a benchmark for all project outcome and output indicators. These will support and used as a basis for setting performance targets for monitoring project performance. The consultancy provided a comprehensive baseline survey for the project that identifies and measures the status quo of key project indicators at the outset of the project along main impact levels (outcome, output).

The specific objectives of the baseline study were:

- 1. Set and /interpret baseline values (benchmarks) for each key project indicator at outcome and output level as per the log frame.
- 2. To set targets against which project progress along the impact chain can be monitored and evaluated
- 3. To assess the current status of child and maternal nutrition in the project areas, including accessibility and utilization of essential healthcare services by the target population and other key socio-economic factors

Methodology

This baseline study employed a mixed-method cross-sectional design, combining both qualitative and quantitative data collection methods, as well as primary and secondary data sources. Data were gathered through a literature review, household surveys, key informant interviews, and focus group discussions. For the household survey, a multistage cluster sampling technique was utilized. The initial stage involved selecting households using an adapted SMART methodology, which established criteria for household inclusion. The sample was then distributed across respective districts using probability proportional to size (PPS). Within districts, clusters or villages were selected, and households were allocated based on their proportional representation. Household selection employed simple random sampling from updated household lists, with households serving as the basic sampling units.

Data collection for the household survey utilized integrated household questionnaires in ODK Collect on Android phones. Data were synchronized with ODK Aggregate servers, enabling daily downloads for plausibility checks during the survey and final data analysis

upon completion. Qualitative data were collected through notetaking and later transcribed on laptops for analysis. Data were analyzed and disaggregated, wherever feasible, based on respondent gender, household head gender, presence of disabled members in the household, among other factors.

Throughout the assessment process, ethical and protection standards were adhered to, ensuring confidentiality, non-harm, voluntary participation, and informed consent from participants.

Summary of Key findings

a. Household demographics

The survey comprehensively assessed 400 households, 665 children aged 6-59 months, and 376 women of reproductive age (15-49 years). The average household size was 4.87 members, with a majority of male-headed households (71.2%). Urban and rural areas were equally represented (37.5% each), with a significant portion of households being internally displaced persons (25%). Income sources varied, with domestic service (36.0%) and business (14.3%) being the primary sources. Access to safe drinking water was relatively high, with the majority of households obtaining water from protected sources (68.2%) and employing various methods for water treatment. However, access to sanitation facilities was a concern, particularly in female-headed households and respondents living with disability. The majority of respondents were female, with a mean age of 29.8 years. A small percentage of respondents (5.8%, n=23) reported living with disabilities, with mobility issues being the most commonly reported difficulty. Educational attainment among respondents was generally low, with only a minority (17.8%) having completed formal education.

b. Outcome indicators

Overall Outcome Indicator 1 % increase of funding for health and nutrition services from national & County budgets: In 2024, the Ministry of Health has seen a significant decrease in its budget allocation, from \$83 million in 2023 to \$52 million in 2024. One possible explanation for the decrease in funding for ministries such as Health, Labour, and Women and Human Rights could be that the donor-funded projects they were managing in the previous year are no longer active or have been scaled down hence budget allocation adjusted accordingly.

Overall Outcome Indicator 2:% of children under five years of age with reduction in wasting: Prevalence of wasting was 14.0% (10.6 - 18.4 95% C.I.) while severe wasting was 2.6% (1.6 - 4.1 95% C.I.). Wasting prevalence was notably higher among boys, while stunting prevalence showed no significant gender difference.

Overall Outcome: Indicator 3: % of children under 5 years with reduction in stunting: The survey unveiled a stunting prevalence of 9.8% (6.1 – 15.6 95% C.I.) while severe stunting was 2.1% (0.9 – 4.8 95% C.I.). There was no significant difference in stunting among boys and girls (P=0.483). Compared to Somali demographic and health survey 2020, the prevalence of stunting was significantly different (P=0.000). The design effect of stunting

in this survey was 3.53 indicating a high difference (heterogeneity) in stunting across the assessment villages (clusters).

Outcome Module 1 Indicator 3: % Increase of funding provided annually by sub-national governments for local health and nutrition facilities in target districts: Somalia overall morbidity and mortality remain very high, particularly among women and children. Somalia currently has the world's third highest child mortality rate. One out of seven children die before the age of five. This calls for a coordinated and enhanced financing to address the health needs at population level. The current health budgets in Puntland State stands at 4.4% (\$ 1.1M out of \$25M total budget).

Outcome Module 1 Indicator 4% increase of key government officials at national and subnational levels who understand and actively advocate (participate) for the application of basic nutrition and health rights as enshrined in international and local laws: Advocacy forums exist at both national and regional levels, involving various stakeholders such as NGOs, government agencies, civil society groups, and academic institutions. There is a total of 653 active employees in the Health and Nutrition professionals from Puntland region (625 health professionals and 28 nutritionists). About half of them attend and actively participate in the advocacy meeting annually at various level.

Outcome Module 2 Indicator 1: % of children<6 months who are exclusively breastfed (EBF): Exclusively breastfed child is 14 times less likely to die in the first six months than a nonbreastfed child and breastfeeding drastically reduces deaths from Acute Respiratory Infections (ARI) and diarrhoea, two major child killers (LANCET 2008). Half of children (50.0%) 0-5 months were exclusively breastfed.

Outcome Module 3: Indicator 1: % of children aged 6-23 months receiving minimum acceptable diet: Minimum dietary diversity was very low with only 14.3% of children 6-23 months feeding from 5 out of 8 food groups while only 45.4% achieving their age-specific minimum meal frequency. A significant low proportion (10.2% overall, 10.1% boys, 10.3% girls) achieved their minimum acceptable diet. Whereas awareness of infant and young child feeding practices was generally high, the practice was considerably low. From discussion with caregivers, this could be associated with tight birth spacing, medical complications and low knowledge on IYCF.

Outcome Module 2 Indicator 2 : % of women aged 15-49 who used at least 4 antenatal examinations (ANC): While the majority of women attended at least one ANC visit, only 32.7% met the recommended minimum of four visits. Most ANC visits occurred in the first trimester, indicating early engagement with healthcare services. However, there was a disparity in ANC attendance based on household head gender and respondent disability status. Key services received during ANC include blood pressure and body measurements, diet counseling, and tetanus toxoid provision, with over half of the mothers receiving tetanus vaccination during their last pregnancies. Health centers and home deliveries were commonplace of deliveries, with midwives being the primary birth attendants. Notably, untrained birth attendants supported a proportion of deliveries (5.6%), particularly among mothers with disabilities (17.6%)

Output 2.1 Indicator 1 # of health facilities in target districts providing gender-sensitive *primary care in nutrition and health and SRHR:* In Puntland, there is a Health Act that has been endorsed by ministries, approved by parliament, and signed by the president that provide guidance to health planning, implementation and review. Among the 37 health facilities supported by WVI, all of them provide basic nutrition services (Growth Monitoring, Prevention of malnutrition counseling, Treatment of malnutrition among under-fives). However, none provide specialized family planning and STI testing and counseling (the available SRHR services is ANC and postnatal care). The low provision of SRHR could be attributed to low demand influenced by socio-cultural and religious beliefs. FGDs with women revealed that uptake of contraception is not embraced since it's not supported by societal and religious beliefs.

Output 3.1 Indicator 1# of HH growing nutrient-rich crops: A big proportion (76.3) of households reported not owning either vegetable or fruit garden, with 18.5% having only a vegetable garden, 2.0% having only a fruit garden, and 3.3% having both. The majority (91.0%) of households do not have access to land for farming. Only 1.3% of respondents had heard of biofortified crops before with none reporting having consumed it in the last seven days.

Output 3.1 Indicator 2% of HH with acceptable HH Dietary Diversity Score (HDDS): The most consumed food groups were oils and fats (76.0%), sweets/sugar (77.8%), and cereals (69.8%). Food groups with relatively lower consumption rates included fish and seafood (22.0%), dark green leafy vegetables (22.0%), and eggs (33.3%). The majority of households achieved the minimum dietary diversity threshold (71.0%), indicating a moderate level of dietary variety. However, there is still room for improvement, particularly in increasing the consumption of nutrient-rich food groups such as fruits, vegetables, and protein sources.

Output 3.2 Indicator 1 % and # of families with adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF minimum criteria: This indicator was defined as children achieving minimum dietary diversity, minimum meal frequency and the proportion of women who consume iron containing supplements during pregnancy. Overall, only caregivers for 10.0% (Female 10.7%, Male 9.1%) of the children had adequate knowledge and skills in nutrition in the first 1000 days as per maternal, infant, and young children feeding (MIYCF) minimum criteria.

Output 3.2 Indicator 2 # and percent of primary caregivers with improved knowledge and practice in IYCF practices: This indicator measures knowledge and practices on maternal and infant and young child feeding related aspects was assessed around 5 key areas: Breastfeeding Promotion and Support; Complementary Feeding Practices; Maternal Health; Nutrition; and Hygiene. The minimum score was 10 out of possible 15 scores.

More than half of the respondents (68.5%, n=274) had adequate knowledge of nutrition in the first 1000 days

Output 4.1 % increase in local CSO capacity assessment score: The overall score of 57.7 means that the CSO is in emerging phase characterized as some deficiencies, significant weaknesses, not easily remediable before award, moderate to high risk.

c. Conclusion

In conclusion, the study highlights significant gaps in health financing, child health and nutrition, maternal and child health, and hygiene and sanitation in the studied region. These gaps indicate critical areas that requires a multifaceted approach involving policy changes, community education, and improved health service delivery to ensure better health outcomes for the population.

Indicator	Baseline assumption	Baseline Values	Target Values (design
	(design phase)		phase)".
Overall Outcome: Indicator 1 % increase of funding for health and nutrition services from national & County budgets	-	\$83M 7.7%	TBD
Overall Outcome: Indicator 2:% of children under five years of age with reduction in wasting	11%Puntland Health and demographic Survey 2020	Prevalence by WHZ: GAM 14.0% (Boys 16.4 %; Girls 11.6 %) MAM 11.5% SAM 2.6%	TBD reduce <5% by project end 02/2027.
Overall Outcome: Indicator 3 : % of children under 5 years with reduction in stunting	25%	9.8% (Boys 11.1%, Girls 8.6%)	24%
Outcome Module 1 Indicator 1 # action plan per country, including monitoring frameworks, aligned to African Regional Nutrition Strategy 2015- 2025 (ARNS)		N/A	TBD
Outcome Module 1 Indicator 2 # of Progress Reports and Accountability Mechanism submitted by project mid- term		N/A	TBD
Outcome Module 1 Indicator 3 : % Increase of funding provided annually by sub-national governments for local health and nutrition facilities in target districts	-	\$1.1M 4.4%	TBD 20% over baseline by project end (baseline in first project year).

Table 1: Summary of baseline indicators

Outcome Module 1 Indicator 4:% increase of key government officials at national and sub-national levels who understand and actively advocate (participate) for the application of basic nutrition and health rights as enshrined in international and local laws		10 (2 state-level, 8 district-level)	TBD
Outcome Module 2 Indicator 1: % of children<6 months who are exclusively breastfed (EBF)	32% (Puntland Health and demographic Survey 2020)	50% (Boys 66.7%, Girls 33.3%)	TBD 5% from baseline by the end of the project.
Outcome Module 2 Indicator 2 : % of women aged 15-49 who used at least 4 antenatal examinations (ANC)	6% (Puntland Health and demographic Survey 2020)	32.7% (PLWD 20.0%, non PLWD 33.3%)	TBD 10 from baseline by the end of the project.
Output 2.1 Indicator 1: # of health facilities in target districts providing gender-sensitive primary care in nutrition and health and SRHR		78% (29 out of 37)	TBD
Output 2.1 Indicator 2 : # of increase yearly nutrition & SRHR consultations in H&N facilities in project areas	-	SRHR 61,585 Nutrition: 173,477	TBD
Output 2.2 Indicator 1: # of number of community-based organizations/groups with capacity to prevent, monitor and address malnutrition from a gender perspective	-	14 (Total: 26)	
Output 2.3 Indicator 1 # of districts with H&N planning/knowledge done by trained district health managers	N/A	N/A	
Outcome Module 3: Indicator 1:% of children aged 6-23 months receiving minimum acceptable diet	0	10.2% (Boys 10.3%, Girls 10.1%)	TBD 10% from baseline by the end of the project.
Output 3.1 Indicator 1# of HH growing nutrient-rich crops	-	0	TBD
Output 3.1 Indicator 2% of HH with acceptable HH Dietary Diversity Score (HDDS)	-	71.0%	TBD 15% from the baseline
Output 3.2 Indicator 1 % and # of families with adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF minimum criteria	-	10.0% (42)	TBD increased by 20% from baseline by end of project.
Output 3.2 Indicator 2 # and percent of primary caregivers with improved knowledge and practice in IYCF practices	-	68.5% (274)	TBD increased by 20% from baseline by end of project.
Outcome Module 4 :Indicator 1 # of local CSOs officially members of 1 national or regional advocacy working group	N/A	N/A	N/A

Outcome Module 4 :Indicator 2# of advocacy events (co)organized by local CSO	N/A	N/A	
Output 4.1 % increase in local CSO capacity assessment score	65.7%;	57.5%	75.7%
Output 4.2 : Indicator 1 # of community-owned advocacy structures per target district engaging with service providers to advocate for access to and quality of gender responsive H&N services	N/A	N/A	

1 INTRODUCTION

1.1 Current Humanitarian Situation in Somalia

In 2023, Somalia narrowly averted a famine following a devastating drought, one of the most severe in decades, only to be confronted with the worst floods in generations mere months later. Despite the alleviation of drought conditions, the population requiring humanitarian assistance in 2023 decreased by 17% compared to the peak of the drought but remained significantly higher than the five-year average.

The Federal Government expressed grave concerns over the substantial humanitarian and infrastructural ramifications stemming from excessive rainfall and flooding, exacerbated by the El Niño phenomenon in late 2023. These floods wrought havoc, resulting in property destruction, disruptions to essential services, further displacements, and a surge in cholera and other waterborne illnesses, disproportionately affecting vulnerable demographics such as children, women, the elderly, and individuals with disabilities. Notably, over 80% of the displaced population comprised women and children, facing heightened protection risks compounded by existing inequalities.

The compounding effects of climate change, conflict, insecurity, and other factors continue to drive Somali civilians from their homes, funneling them into already overcrowded urban centers and towns. Consequently, the number of internally displaced persons (IDPs) has soared to nearly four million people, constituting one of the largest IDP populations globally. The anticipated continuation of displacement into 2024 is contingent upon the government's acceleration of large-scale military operations against Al-Shabab in regions such as Galmudug, Jubaland, Southwest, and Hir-Shabelle State.

1.2 Health and Nutrition Situation

Despite the positive impact provided by the 2023 Gu rains and sustained humanitarian assistance, the levels of acute food insecurity remain high in Somalia with 4.3 million people facing IPC Phase 3 or worse outcomes between October to December 2023. In terms of evolution of needs, the number of people facing severe food insecurity in December 2023 has decreased by 36 per cent compared to December 2022¹. In 2024, acute food insecurity is anticipated to persist, influenced by the lasting repercussions of the prolonged drought spanning from 2020 to 2023, the adverse effects of El Niño-induced flooding, and various other contributing factors. These ongoing challenges are expected to exacerbate humanitarian needs across the region. Particularly vulnerable population groups include individuals newly displaced by flooding and vulnerable agropastoral communities grappling with the compounding effects of environmental stressors.

Multiple, frequent, and concurrent disease outbreaks on top of protracted conflict and extreme weather conditions continue to threaten the health and the lives of the crisis-affected populations of Somalia. According to the FSNAU IPC Post Gu 2023, the nutrition situation in Somalia improved from a national average GAM rate of 15.9 per cent to 12.4

¹ Somalia 2024 Humanitarian Needs and Response Plan (HNRP)

per cent. The nutrition situation is predicted to relatively improve in most places in 2024, except for flood-prone areas especially if floods result in disease outbreaks (AWD/Malaria) and restrict humanitarian services.

1.3 GROW ENRICH Project

A child's future health is significantly influenced by the quality of nutrition provided during the initial 1,000 days of life, encompassing both pregnancy and early childhood. Research indicates that factors such as the mother's diet, weight, and lifestyle choices play pivotal roles in shaping the infant's immune system, organ development, and metabolism. Thus, ensuring proper nutrition and healthy habits during this critical period is paramount for fostering optimal long-term health outcomes for the child. GROW ENRICH Global program aims at improving maternal and child health and nutrition in East Africa through strengthening health and nutrition systems and operationalizing gender-sensitive health and nutrition rights strategies in Kenya, Somalia and Tanzania. The Global Programme will address the root causes of malnutrition and gender inequality in the three target countries through a multi-level approach at micro, meso and macro levels. It will build on proven strategies for implementing key health and nutrition interventions through strengthening local health and nutrition systems, targeted advocacy and building the capacity of civil society and state actors at sub-national, national and regional/continental levels.

The Global Programme will increase access to basic nutrition, SRHR and health services for a total of 658,339 direct beneficiaries, of whom approximately 246,612 are women and 227,402 children under five in the three countries of East Africa. In Somalia the Project targets 242,178 direct beneficiaries (women-91564, Men-65980, girls-42963 boys-41671) and 302 430 indirect beneficiaries in 37 villages in four districts (Garowe, Eyl, Burtinle, and Dangorayo) in the Nugaal region of Puntland State. Somalia faces challenges in its quest for an effective health system such as continued political instability and a highly challenging security situation in many parts of the country, allocation of insufficient funds to public health sector, lack of adequate training and deployment of trained health workforce and its fair distribution across the country leading to inequity in access to skilled health personnel as well as poor health service infrastructure in response to community needs. The program activities will directly address the nutrition, sexual, and reproductive health needs of people in the target communities.

1.4 Baseline Objectives and Scope

The overall objective of the baseline study was to provide a benchmark for all project outcome and output indicators. These will support and be used as a basis for setting performance targets for monitoring project performance. The consultancy provided a comprehensive baseline survey for the project that identifies and measures the status quo of key project indicators at the outset of the project along main impact levels (outcome, output). The specific objectives of the baseline study are:

- 1. Set and /interpret baseline values (benchmarks) for each key project indicator at outcome and output level as per the log frame.
- 2. To set targets against which project progress along the impact chain can be monitored and evaluated
- 3. To assess the current status of child and maternal nutrition status in the project areas, including accessibility and utilization of essential healthcare services by the target population and other key socio-economic factors

Baseline data was gathered from four districts in Puntland State: Garowe, Eyl, Burtinle, and Dangorayo. This will provide a comprehensive understanding of the project's current situation and establish benchmarks.

2 Baseline Methodology

2.1 Study design

This study was cross-sectional and employed mixed-method approach in data collection, triangulation, and analysis. Household questionnaires, focus group discussions, key informant interviews and an observation checklist were used to gather data from project target beneficiaries, community groups, community leaders, line ministries, project staff and other the relevant stakeholders. The study broadly adopted a phased approach which included an inception phase, fieldwork and data collection phase, data analysis and reporting phase as well as dissemination phase. In the quantitative component, the study population of the baseline survey were Women of Reproductive Age (WRA) aged 15-49 years/primary caregivers and children under five (i.e., 0-59 months, which also constituted children 0-5 months and 6-23 months, 24-59 months). The younger children (0-23 months) were target of questions related to exclusive breastfeeding (0-5 months) and complementary feeding particularly questions on the minimum acceptable diet (6-23 months). Household indicators such as dietary diversity score and biofortification were applicable to selected households. The qualitative study population included WRA/caregivers, community leaders, members from district health teams including community development officers, Health-facility staff, CHWs, pregnant and lactating women, district health teams, agricultural and irrigation officers, district nutrition focal person, religious leaders, and other stakeholders who were identified as key stakeholders in the region. For the assessment of Gender Equality and Social Inclusion (GESI), adult men and women, female and male youth, were involved.

2.2 Sample size and sampling strategy

The project targets to reach 242,178 direct beneficiaries during the implementation period. The sampling process took into consideration the project targeting data from intervention villages. The baseline study adopted a two-stage cluster sampling for household survey using SMART Methodology. The first stage was assigning of sample to project villages/cluster (primary sampling units) using probability proportionate to size while the second stage was selection of Households (basic sampling units) at the selected clusters using simple random sampling. Data on anthropometry, morbidity, access to healthcare, maternal health, infant and young children were collected. Where there was

more than one eligible woman in the household, a simple random sampling was used to select one; and where the mother has more than one child under the age of five, all children were measured. Other data sets collected concurrently included data on Water Sanitation and Hygiene (WASH) and Food security and livelihood (FSL). A household was defined as 'a person or group of persons who live together in the same house or compound, share the same house-keeping arrangements and are catered for as one unit'.

The Sample size was determined using ENA for SMART software (11th January 2020) using the formula below.

$$n = \{t^2 \ x \ \left(\frac{p \ X \ q}{d^2}\right) \ X \ DEFF\}$$

Where;

- > n = sample size (Children 6-59 months)
- t = constant (2.045 for df=29 and p=0.05)
- p = expected prevalence (fraction of 1)
- d = relative desired precision (fraction of 1)
- > DEFF = Design Effect for Cluster Surveys

This was then converted to households using the formula below;

$$HH = \{\frac{n \ children}{Average \ HH \ size \ X \ \% \ of \ under \ fives \ X \ 0.9}\}$$

The table below outlines factors considered when determining the sample size calculation. The parameters used are drawn from the FSNAU post Deyr data as well as Puntland demographic survey 2020.

Parameters for	Value	Rationale
anthropometry		
Estimated prevalence of	11.3%	FSNAU post Deyr GAM for Nugaal Region ²
GAM		
±Desired precision	3.5	Based on estimated prevalence and the objectives
Design effect	1.2	To cater for heterogeneity within clusters. Based on
		Post Deyr results, GAM prevalence was the same across
		the district hence less heterogenous
Children to be included	411	
Average household size	6	Puntland Demographic survey 2020

Table 2: Sample size calculation for anthropometric measurements

² <u>https://fsnau.org/downloads/Somalia-2023-Post-Deyr-Acute-Malnutrition-Prevalence-by-District.pdf</u>

Percent of under five children	20%	Puntland Demographic survey 2020
Percent of non-respondent	3	This is the anticipated non response based on the previous surveys experience in Somalia context
Household to be included	392	

The household sample (392) were distributed to selected villages based on probability proportionate to size of the target beneficiaries. The district sample distribution was as shown in Table 3 while villages level sample distribution was as shown in annex 2. Random number generator was used select households at the selected clusters.

Table 3: District level Sample Distribution

District	Total Households	Sample Distribution
Garowe	17106	242
Burtinle	7007	99
Eyl	2783	39
Dangorayo	865	12
Total	27761	392

This sample was also representative of other beneficiaries' characteristics as shown in figure below.



Figure 1: Beneficiaries versus sample population

For the qualitative survey, a purposive sampling technique was used to sample community members, government stakeholders, and strategic partners for key informants and focus group discussion. The golden rule of data saturation governed the sample size for the

qualitative group. The distribution of at least one group or interview per district was considered adequate to ensure representativeness.

2.3 Data collection methods and tools

2.3.1 Quantitative Survey methods and tools

The baseline study used a household questionnaire as the primary quantitative data collection tool. For health-related information, a facility checklist was utilized to gather health information data. The baseline team adopted best sampling methods taking into consideration sample size / SMART Survey stages. The sample size, sampling frame, and data collection tools were designed so that data can be statistically compared to test for difference. The questionnaire was designed and administered using ODK collect.

- 1. *Household Survey:* Household survey questionnaires were developed beforehand and approved by the project M&E team. The survey tool was designed to cover the necessary Goals and Outcome level indicators stated in the matrix and add more questions to the questionnaire as appropriate. Digital data collection for quantitative data was employed with data stored at World Vision's data management platform.
- 2. **Desk Review:** All necessary literature relevant to GROW ENRICH project and similar programs being implemented by World Vision Somalia were reviewed. The information gathered through desk review guided the development or refining of data collection tools. The desk review covered the following documents: project proposal, Logframe, M&E plan, and secondary literature studies related to the measurement of goal and outcome level indicators. The desk review process served as guidance on gathering resources that would assist in development of tools and end of project planning. Furthermore, aspects related to gender and social inclusion key concepts were used to examine and appropriate methods.

2.3.2 Qualitative approach

Qualitative data collection techniques leveraged mainly on Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) with relevant community representatives. KIIs involved respondents considered to be direct/indirect participants cognizant of gender and representativeness. Questions were developed focusing on specific themes to triangulate some of the close ended responses in the household questionnaire. Key informant interviews targeted district Health teams, partners, agricultural and religious leaders, and other stakeholders. In addition, the assessment conducted focus group discussions with individuals participating in the various sector interventions.

1. Focus Group Discussion: FGDs were held with the target population, including pregnant and lactating mothers, mothers and caregivers of children under 5, male-headed and female-headed households with people living with disabilities, and farmers interested in growing nutrient-enriched (bio-fortified) food and seed multiplication to obtain qualitative responses and data of relevance concerning the scope and requirements of the baseline study Table 4 shows list of FGDs and KII reached

Focus group Discussions (FGD)	Key Informant interviews (KIIs)
 Number of individuals per FGD: 6-10 members. FGD participants: WRA, pregnant and lactating mothers, caregivers; focus on children 00-23 months. WRA 15-49 years; general focus on access to health services, SRH etc. GESI FGDs (including questions on gender issues and disability at community level): Men Women Youths /Female Youths /male CSO partner - Puntland Minority Women Development Organization 	 KII participants 1. Community leader 2. Health-facility staff 3. Community health workers 4. Gender Desk
Total FGD: 11 (Garowe 4, Burtinle 3, Eyl 3, Dangorayo 4)	Total KII: 14 (Garowe 5, Burtinle 3, Eyl 3, Dangorayo 3)

Table 4: Summary of FGDs and KIIs

- 1. *Key informant interviews* : KIIs guide approved by the Project M&E team for the key informant interviews with the health-facility staff, gender desk officer as well as representatives from the relevant line ministries were developed to gather a deeper understanding of key concepts and issues related to health, nutrition, social inclusion, and gender in the target communities. The discussion provided more details on maternal, infant and young child nutrition, management of acute malnutrition, and agriculture. The discussions also provided an opportunity to understand the operations of departments and their linkage to the project in terms of operation, management and technical support.
- 2. *Field Visit Observation:* The study team made a field visit to observe actual practice from the health facilities directly.

2.4 Summary of data collection Methods

For this baseline evaluation in Puntland state, all indicators reflect the Somalia context. Additional details in accordance with the program monitoring and evaluation (M&E) plan are contained in the project's logical framework matrix.

indicator	Data Sources	Data collection	Sampling	Data Analyses Method
indicator	Data Sources	Methods/Tools	Method	Data Analyses Method
Overall Outcome: Indicator 1 % increase of funding for health and nutrition services from national & County budgets	Qualitative Survey. Review of secondary data	Desk Review of documents KIIs and FGDs	Purposive sampling for KIIs and FGDs	Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Overall Outcome: Indicator 2.% of children under five years of age with reduction in wasting	Children 6-59 months within the target areas	Anthropometrics measurements	Cluster sampling for HH questionnaire	Standardized z-scores calculation Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Overall Outcome: Indicator 3 . % of children under 5 years with reduction in stunting	Children 6-59 months within the target areas	anthropometric measurements	Cluster sampling for HH questionnaire	Standardized z-scores calculation Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Outcome Module 1 Indicator 3 % Increase of funding provided annually by sub-national governments for local health and nutrition facilities in target districts	Qualitative interviews, review of secondary data (e.g., budgets etc)	Desk Review of documents KIIs & FGDs	Purposive sampling for KIIs and FGDs	Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Outcome Module 1 Indicator 4% increase of key government officials at national and sub- national levels who understand and actively advocate (participate) for the application of basic nutrition and health rights as enshrined in international and local laws	Qualitative interviews, review of secondary data	Desk Review of documents KIIs & FGDs	Purposive sampling for KIIs and FGDs	Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Outcome Module 2 Indicator 1% of children<6 months who are exclusively breastfed (EBF)	Individual households within the target areas KIIs & FGDs with WRA/Caregiver s, Community	HH/caregiver survey questionnaire Desk Review of documents FGDs and KIIs	Cluster sampling for HH questionnaire Purposive sampling for KIIs and FGDs	Descriptive statistics of EBF proportions Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration

Table 5: Summary of data collection methods

			-	
	leaders, WEOs,			
Outcome Module 2 Indicator 2 % of women aged 15-49 who used at least 4 antenatal examinations (ANC)	Individual households with WRA within the target areas Secondary data review FGDs & KIIs with WRA etc.	Desk Review of documents HH/caregiver survey questionnaire FGDs and KIIs	Cluster sampling for HH questionnaire Purposive sampling for KIIs and FGDs	Descriptive statistics of the coverage and proportions with ≥4 visits Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Output 2.1 Indicator 1 # of health facilities in target districts providing gender-sensitive primary care in nutrition and health and SRHR	KII health facility and Regional Secondary data review	КІІ	Purposive sampling for KIIs	
Output 2.1 Indicator 2 # of increase yearly nutrition & SRHR consultations in H&N facilities in project areas	KII health facility and Regional Secondary data review	КІІ	Purposive sampling for KIIs	
Output 2.2 Indicator # of number of community- based organizations/groups with capacity to prevent, monitor and address malnutrition from a gender perspective	GESI FGDs with individual men and women, youths (females and males)	GESI FGDs	Purposive sampling for FGDs	Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Outcome Module 3: Indicator 1 % of children aged 6-23 months receiving minimum acceptable diet	Mothers/caregi vers with children 6-23 months within the target areas KIIs & FGDs with WRA/caregiver s, Community leaders, District officials, etc	HHS survey with WRA/caregivers, Desk Review of documents FGDs and KIIs	Cluster sampling for HH questionnaire Purposive sampling for KIIs and FGDs	Compute the dietary diversity score (DDS) – summarize using medians and proportions Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Output 3.1 Indicator 1# of HH growing nutrient- rich crops	Individual households within the target areas KIIs & FGDs with WRA/caregiver	HHS survey with WRA/caregivers, Desk Review of documents FGDs and KIIs	Cluster sampling for HH questionnaire Purposive sampling for	Descriptive statistics of # and proportion growing nutrient-rich crops Comparison Analysis Content/Pattern analysis Convergence/divergence analysis

	s, Community leaders, District officials, etc		KIIs and FGDs	Mixed Method Integration
Output 3.1 Indicator 2% of HH with acceptable HH Dietary Diversity Score (HDDS)	Individual households within the target areas KIIs & FGDs with WRA/caregiver s, Community leaders, District officials, etc	HHS survey with WRA/caregivers, Desk Review of documents FGDs and KIIs	Cluster sampling for HH questionnaire Purposive sampling for KIIs and FGDs	Compute the dietary diversity score (DDS) – summarize using medians and proportions Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Output 3.2 Indicator 1 % and # of families with adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF minimum criteria	Individual households within the target areas KIIs & FGDs with WRA/caregiver s, Community leaders, District officials, etc	HHS survey with WRA/caregivers, Desk Review of documents FGDs and KIIs	Cluster sampling for HH questionnaire Purposive sampling for KIIs and FGDs	Compute the knowledge and skills score – summarize using medians and proportions Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Output 3.2 Indicator 2 # and percent of primary caregivers with improved knowledge and practice in IYCF practices	Individual households within the target areas KIIs & FGDs with WRA/caregiver s, Community leaders, District officials, etc	HHS survey with WRA/caregivers, Desk Review of documents FGDs and KIIs	Cluster sampling for HH questionnaire Purposive sampling for KIIs and FGDs	Compute the IYCF knowledge score – summarize using medians and proportions Comparison Analysis Content/Pattern analysis Convergence/divergence analysis Mixed Method Integration
Output 4.1 % increase in local CSO capacity assessment score	Secondary data review	World vision Capacity Assessment tool	Purposive sampling for KIIs	

2.5 Methods and tools for data analysis

2.5.1 Quantitative Data analysis

Household survey data was collected through ODK and stored in a secure online server, thus enabling real-time access to information for immediate analysis. Data was segregated along the study target location for purpose of contextual analysis in relation to the dynamics and specificity of each target district. At the analysis stage, data was downloaded from a server, exported to Excel for collation and cleaning, and later exported to STATA software for in-depth analysis. Anthropometric data was entered into ENA for SMART software to establish the prevalence of global Acute malnutrition (SAM and MAM) both by weight for height Z-scores (WHZ) and MUAC.

Data entry took place concurrently with data collection through the uploading of filled questionnaires directly to the online server which ensured early detection of an error in data and thus allow for timely intervention while the field team were still in the field. Data cleaning involved validation and checking for outliers during exploratory analysis. The data was then weighted in readiness for analysis. At the first stage of analysis, descriptive statistics such as means and proportions were used to present the sample data characteristic and also to explore the distributional properties of the data. At stage two, a fit bivariate analysis such as cross-tabulation, means comparison (TTEST and ANOVA) were used to examine the association between respondents' characteristics and the outcome variables as well as for identification and selection of final covariates that informed the final results of the analysis.

2.5.2 Assessment of anthropometric indicators

All children between 6-59months of age staying in the selected household were included in the sample. The respondent was the primary caregiver of the index child/children. If a child and/or the caregiver was temporarily absent, then the survey team revisited the household to collect the data at an appropriate time. World Health Organization thresholds were used in determining the nutrition status as below:

- Global Acute Malnutrition (GAM): weight-for-height Z scores less than -2 and/or presence of oedema (WHZ<-2 and/oedema)
- Severe Acute Malnutrition (SAM): weight-for-height Z scores less than -3 and/or presence of oedema (WHZ<-3 and/oedema)
- Global Acute Malnutrition based on MUAC (GAMMUAC): Mid Upper Arm Circumference less than 125 mm and/or presence of oedema (MUAC<125 mm and/oedema); and severe acute malnutrition as MUAC<115 mm and/oedema
- Wasting: weight-for-height Z scores less than -2 (WHZ<-2); and severe wasting as WHZ<-3.
- Underweight: weight-for-age Z scores less than -2 (WAZ<-2); and severe underweight as WAZ<-3.
- Stunting: height-for-age Z scores less than -2 (HAZ<-2); and severe stunting as HAZ<-3.

2.5.3 Qualitative Data Collection

Data from qualitative sources were translated, transcribed, coded, and analyzed along themes derived from baseline questions and aligned with the study objectives. Before analysis, the team created an internal pilot codebook to ensure the relevance of the coding structure. Data from these sources constituted the main study themes and categories from which inferences were made to draw conclusions and inform final recommendations. In addition, verbatim quotations from qualitative data were extracted to justify and augment key findings from quantitative data.: Data from consultative meetings, project records, stakeholders' documents, and secondary sources from the above sources were organized along study themes and utilized in triangulating evaluation findings. A collaborative process of comparing emergent themes, triangulation of data

across sources, as well as synthesis of draft findings was adopted. This approach allowed the research team to view data from different perspectives and capture new learning.

2.6 Quality assurance in data collection and analysis

To enhance the quality of the study process, the team took the following steps:

- 1. Selection of data collection team: The study utilized locals as supervisors and research assistants who are familiar with the local geopolitical and security context and who speak the local language. These were drawn from a pool of candidates with previous research experience.
- 2. Training of field research team, translation, and pretesting of tools: The field supervisors and research assistants were taken through an induction process on the use of study tools (HH survey tool, key informant guides, focus group discussion guides). Once the tools are ready, the research team conducted piloting and further enhanced them based on feedback from pre-testing. The phone-based data collection was designed with skip logic, validation criteria to exclude outliers as well as GPS referencing for quality and integrity of data collection.
- 3. Consultative meetings organization, facilitation, and recording: Vision Quest utilized experienced experts throughout the study in study design, implementation as well as facilitation of consultative and dissemination meetings. The team of experts ensured that sessions are guided by clear objectives and have a clear output. Effective time management was enhanced to ensure quality engagement and innovative presentation approaches were utilized in each presentation.
- 4. Coordination of field data collection and supervision: Vision Quest team (both in the field-based and those based in our regional office in Nairobi) coordinated field data collection and directly supervised field team leaders and field officers. The team also reviewed all primary data for accuracy and completeness and provided timely feedback to the field-based team through respective team leaders. The team lead monitored all activities conducted in the field and share a daily fieldwork journal on the progress of the data collection process, and where additional support was needed, the team leader provided the same on time. After fieldwork, local teams produced transcripts in the English language, which was reviewed by research team who requested for adjustment/ improvement where needed.

2.7 Limitations and Risk Management

- 1. Determining the exact age of some children was a major challenge, particularly with the use of calendar of events. The main difficulties relate to accuracy on recall (recall bias), that is, respondents could not relate well with some of the events. The challenge in determination of accurate age led to flagging and removal of 35 values in the analysis on stunting (height for age).
- 2. There was poor recording of some information such as Tetanus Vaccination. Some of the mothers indicated that they had received tetanus while it was not recorded in the health cards.

2.8 Compliance of standards and data protection

2.8.1 Standards

The team from VQ took all reasonable steps to ensure that the study is designed and conducted in adherence of the following: seeking necessary research protocol approval from relevant national/state level authorities, respect and protection of the rights and welfare of the people and communities involved; World Vision Safeguarding protocols, do-no harm in data collection, technical accuracy and reliability of findings, transparency and impartiality of researchers as well as ensured that processes contribute to organizational learning and accountability. In addition, research team provided full disclosure of the nature of the study, the risks, and benefits to the respondents, use unique identification to conceal the identity of study respondents as well as maintain confidentiality and gender sensitivity during the data collection process.

2.8.2 Data Protection

The lead consultant was responsible for ensuring that data collection and analysis approaches are designed to mitigate child protection risks and protect participants' privacy and well-being by establishing and following credible, ethical evaluation principles:

- The lead consultant ensured that all research assistants are oriented on research ethics and child protection policy before the commencement of data collection.
- The lead consultant ensured that each research team member adheres to research ethics and WV child protection policies.
- The lead consultant ensured that all information collected is treated with all the confidentiality it deserves.
- The lead consultant ensured that survey participants involved in the study are well-informed of the study's objectives and their consent is sought before starting data collection. Participants were informed of their rights to decline participation in the evaluation and were free to withdraw from the process if they wish.
- Personally Identifiable Information (PII): Any technologies, digital platforms, or other methods employed should include sufficient data security and privacy protocols to ensure that PII is protected.
- The lead baseline study consultant must familiarize him or herself with the following ethical and protection guides (to be supplied to the selected lead evaluator):
 - ✓ WVI Child Protection Code of Conduct
 - ✓ WVI Guideline of Ethical Principles

3 BASELINE FINDINGS

This section of the report presents the main findings of the end line evaluation. Firstly, the sections set the scene by presenting the socio-demographics of the study respondents as captured through the household survey. Subsequently, the report outlines the baseline findings along the key baseline indicators as captured through the survey. The main sources of data presented under this section has been derived from primary data collected directly from project beneficiaries, project staff and key project partners and

stakeholders. In addition, primary data has been triangulated with secondary data from project design document, and other relevant sector reports and publications.

3.1 Survey Completeness

The survey assessed 400 households, 665 children 6-59months and 376 women of reproductive age (15-49 years). Table 6 shows distribution by age and gender for children assessed for anthropometry.

	Bo	ys	Gi	rls	То	tal	Ratio
(months)	no.	%	no.	%	no.	%	Boy:girl
6-17	58	44.3	73	55.7	131	19.7	0.8
18-29	90	51.7	84	48.3	174	26.2	1.1
30-41	95	54.6	79	45.4	174	26.2	1.2
42-53	64	48.9	67	51.1	131	19.7	1.0
54-59	30	54.5	25	45.5	55	8.3	1.2
Total	337	50.7	328	49.3	665	100.0	1.0

Table 6: Distribution of age and sex of sample

Anthropometric measurements were analyzed using the ENA for SMART software based on WHO references and SMART flags. The data quality for anthropometric is as shown in annex 1. The exclusion of flagged data, the mean Z scores and the standard deviation is as shown in Table 7.

Table 7: Mean z-scores, D	Design Effects and excluded subjects	;
	Sesign Enects and excluded subjects	<u> </u>

Indicator	n	Mean z- scores ± SD	Design Effect (z-score < -2)	z-scores not available	z-scores out of range
Weight-for- Height	662	-0.90±1.08	1.88	0	3
Weight-for-Age	658	-0.88±0.98	3.00	0	7
Height-for-Age	630	-0.53±1.18	3.53	0	35

3.2 Key Socio-Demographics of Households and respondents

3.2.1 Household characteristics

The average household size was 4.87 (4.68 – 5.07 95% C.I) members per household. Majority were female (53.5%) compared to Males (46.5%). Table 8 shows distribution of age categories distributed by gender.

Table 8: Household size and proportions by gender

Category	Frequency	Percentage
Adult males (15 years and older)	346	17.7%
Adult females (15 years and older)	453	23.2%
Male children (less than 5 years old)	347	17.8%
Female children (less than 5 years old)	339	17.4%
Other male children (between 5 and 15 years old)	213	10.9%
Other female children (between 5 and 15 years old)	252	12.9%
Total	1950	100%

Most of the households were male headed (71.2%) as compared to Female (28.8%) there were no child-headed households surveyed. The households assessed comprised mostly of Urban (37.5%) characterized by high population density, diverse economic activities, and well-developed infrastructure, rural (37.5%) characterized by lower population density, predominant agricultural activities, and less developed infrastructure while the rest were IDPs (25.0%). Domestic servants (depending on spouse) were the main source of income followed by business were the main source of income as shown in Figure 2.



Figure 2: Main source of income

3.2.2 Respondents' characteristics

Majority of the respondents were female (97%) with mean age of 29.8 (29.0-30.5 95% C.I) years. The percentage of male caregivers was only 3% (n=12). People living with disability accounted for 5.8% (n=23) of the total respondents (N=400), all of whom were female. The percentage of male caregivers was only 3% (n=12). Among the person living with disability (5.8%, n=23), all were female. Among respondents living with disability, walking and climbing steps were the main reported form of difficulty as shown in Figure 3.



Figure 3: Difficulties reported in respondents living with disability

The majority of the respondents were married (82.5%). Majority of the respondents especially Female headed household's respondents and those living with disabilities had no schooling. Overall, only 17.8% of the respondents reported having completed formal education (primary and above).



Figure 4: Respondents Education level

3.3 Results around Key outcome indicators

3.3.1 Overall Outcome Indicator 1: % increase of funding for health and nutrition services from national & County budgets

Indicator	Somalia Budget 2024	Target
% increase of funding for health and nutrition services from national & County budgets	National 7.7% (\$83M out of \$1.08B)	>10%

The Somalia health sector (including nutrition) had seen an increase in budget allocation with the government share in health expenditure increasing from 7.8% in 2018 to 12.2% in 2020³. The government has also expanded its financing from provision of salaries to other areas such as acquisition of assets, training, and education. In 2024, the Ministry of Health has seen a significant decrease in its budget allocation, from \$83 million in 2023 to \$52 million in 2024. One possible explanation for the decrease in funding for ministries such as Health, Labour, and Women and Human Rights could be that the donor-funded projects they were managing in the previous year are no longer active or have been scaled down hence budget allocation adjusted accordingly⁴.

3.3.2 Overall Outcome Indicator 2: % of children under five years of age with reduction in wasting

Indicator	Pre-baseline values	Baseline values	Target
% of children under five years of age with reduction in wasting	11.3 (Source:Puntland Health and demographic Survey 2020)	14.0 % (10.6 - 18.4 95% C.I .)	reduce <5% by project end 02/2027.

3.3.2.1 Prevalence of Wasting by WHZ

Child growth is an internationally accepted outcome reflecting child nutritional status. Child wasting refers to a child who is too thin for his or her height and is the result of recent rapid weight loss or the failure to gain weight. A child who is moderately or severely wasted has an increased risk of death, but treatment is possible. Child wasting is one of the World Health Assembly nutrition target indicators⁵. Wasting is defined as weight for height <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards among children under 5 years of age.

³ SOMALIA HEALTH SECTOR STRATEGIC PLAN 2022–2026 (HSSP III), December 2021 ⁴ Somalia Public agenda (April 2024). Governance brief 29. Accessed at: <u>https://somalipublicagenda.org/wp-content/uploads/2024/04/SPA_Governance_Briefs_29_2024_ENGLISH1.pdf</u>

⁵ WHO Indicator Metadata Registry List

Prevalence of wasting was 14.0% (10.6 - 18.4 95% C.I.) while severe wasting was 2.6% (1.6 - 4.1 95% C.I.) as shown in Table 9. Boys had higher prevalence rates than girls, however, the difference was not significantly different (P=0.111). By WHO categorization, the prevalence of wasting is considered "serious" levels (10-14%) and that SAM is considered an emergency situation (> 2%) requiring immediate intervention.

, ,			
	All	Boys	Girls
	n = 662	n = 335	n = 327
Prevalence of global	(93) 14.0 %	(55) 16.4 %	(38) 11.6 %
malnutrition	(10.6 - 18.4 95% C.I.)	(12.2 - 21.8 95% C.I.)	(8.2 - 16.2 95% C.I.)
(<-2 z-score and/or oedema)			
Prevalence of moderate	(76) 11.5 %	(43) 12.8 %	(33) 10.1 %
malnutrition	(8.5 - 15.3 95% C.I.)	(9.1 - 17.9 95% C.I.)	(7.1 - 14.1 95% C.I.)
(<-2 z-score and >=-3 z-			
score, no oedema)			
Prevalence of severe	(17) 2.6 %	(12) 3.6 %	(5) 1.5 %
malnutrition	(1.6 - 4.1 95% C.I.)	(2.2 - 5.7 95% C.I.)	(0.6 - 4.1 95% C.I.)
(<-3 z-score and/or oedema)			

Table 9: Prevalence of acute malnutrition based on weight-for-height z-scores (and/or oedema) and by sex

Moderate wasting was more prevalent among children aged 54-59months while severe wasting was more prevalent in children aged 6-17months. The age around six months poses a significant threat to child malnutrition and morbidity because it's during this time the children are usually introduced to solid and semi-solid foods. The safety and nutritional value of these complimentary food if not good can compromise child health and nutrition.

Table 10: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or oedema

		Severe wasting (<-3 z-score)		Moderate wasting (>= -3 and <-2 z- score)		Nor (> = -2 :	mal z score)	Oed	ema
Age	Total	No.	%	No.	%	No.	%	No.	%
(mo)	no.								
6-17	130	4	3.1	16	12.3	110	84.6	0	0.0
18-29	172	2	1.2	17	9.9	153	89.0	0	0.0
30-41	174	8	4.6	19	10.9	147	84.5	0	0.0
42-53	131	2	1.5	14	10.7	115	87.8	0	0.0
54-59	55	1	1.8	10	18.2	44	80.0	0	0.0
Total	662	17	2.6	76	11.5	569	86.0	0	0.0

There was a notable difference in wasting across districts as shown in Table 11. Prevalence was high in Eyl and lowest in Garowe. However, the difference was not significant (P=0.078).

District	Prevalence	95% C.I.	
Burtinle	14.1%	9.7%	20.1%
Dangorayo	18.8%	6.2%	44.8%
Eyl	23.9%	15.2%	35.5%
Garowe	12.2%	9.3%	15.8%

Table 11: Prevalence of wasting across districts

3.3.2.2 Prevalence of Wasting by MUAC

MUAC is the best indicator for mortality⁶ and is used in the community (for screening) to identify individual children in need of referral and as an admission criterion for feeding programs. Generally, MUAC usually tends to indicate lower GAM levels compared to WHZ-Scores. The prevalence of malnutrition using MUAC is significantly lower compared to using Weight for Height Z-scores. Prevalence of wasting by MUAC was 6.2% (3.9 - 9.6 95% C.I.) while severe wasting was 1.1% (0.5 - 2.3 95% C.I.) as shown in Table 8.

Table 12: Prevalence of acute malnutrition based on MUAC cut off's (and/or oedema) and by sex

	All	Boys	Girls
	n = 665	n = 337	n = 328
Prevalence of global malnutrition	(41) 6.2 %	(13) 3.9 %	(28) 8.5 %
(< 125 mm and/or oedema)	(3.9 - 9.6 95% C.I.)	(2.5 - 6.0 95% C.I.)	(4.9 - 14.5 95% C.I.)
Prevalence of moderate	(34) 5.1 %	(10) 3.0 %	(24) 7.3 %
malnutrition	(3.0 - 8.6 95% C.I.)	(1.7 - 5.2 95% C.I.)	(4.0 - 13.0 95% C.I.)
(< 125 mm and >= 115 mm, no			
oedema)			
Prevalence of severe malnutrition	(7) 1.1 %	(3) 0.9 %	(4) 1.2 %
(< 115 mm and/or oedema)	(0.5 - 2.3 95% C.I.)	(0.3 - 2.6 95% C.I.)	(0.5 - 3.2 95% C.I.)

3.3.2.3 Prevalence of Underweight by Weight-for-Age Z Scores (WAZ)

The weight-for-age (WAZ) index provides a composite measure of wasting and stunting, and commonly used to monitor the growth of individual children in Mother-child booklet since it enables mothers easily visualize the trend of their children's increase in weight against age. A low weight-for-age is referred to as underweight. The prevalence of underweight is as shown in Table 13.

⁶ Kumar, P., Bijalwan, V., Patil, N., Daniel, A., Sinha, R., Dua, R., & Seth, A. (2018). Comparison between Weightfor-Height Z-Score and Mid Upper Arm Circumference to Diagnose Children with Acute

Indicator	All	Boys	Girls
	n = 657	n = 330	n = 327
Prevalence of underweight	(108) 16.4 %	(59) 17.9 %	(49) 15.0 %
(<-2 z-score)	(11.6 - 22.8 95%	(13.2 - 23.7 95%	(9.0 - 23.9 95% C.I.)
	C.I.)	C.I.)	
Prevalence of moderate	(94) 14.3 %	(52) 15.8 %	(42) 12.8 %
underweight	(10.5 - 19.2 95%	(11.8 - 20.8 95%	(7.9 - 20.3 95% C.I.)
(<-2 z-score and >=-3 z-score)	C.I.)	C.I.)	
Prevalence of severe underweight	(14) 2.1 %	(7) 2.1 %	(7) 2.1 %
(<-3 z-score)	(0.9 - 5.2 95% C.I.)	(0.7 - 6.7 95% C.I.)	(0.8 - 5.4 95% C.I.)

Table 13: Prevalence of underweight based on weight-for-age z-scores by sex

3.3.3 Overall Outcome Indicator 3: % of children under 5 years with reduction in stunting

Indicator	Pre-baseline values	Baseline values	Target
% of children under 5 years	Overall, 25.4%	Overall, 9.8%	24%
with reduction in stunting	Male, 25.2%	Male, 11.1%	
	Female, 25.6%	Female, 8.6%	
	PHealth and		
	demographic Survey		
	2020		

Linear growth failure in childhood is the most prevalent form of undernutrition globally⁷. Stunting more pervasively hinders developmental potential and human capital of entire societies due to its longer-term impact on cognitive function and adult economic productivity; it is therefore considered the best surrogate marker of child health inequalities⁸. Stunting is a complex situation causes by several factors such as poor nutrition, food Insecurity, poor maternal nutrition and health, lack of access to clean water and sanitation, limited healthcare access, low birth weight, poor infant and young child feeding practices, poverty and socioeconomic inequality.

The survey unveiled a stunting prevalence of 9.8% (6.1 – 15.6 95% C.I.) while severe stunting was 2.1% (0.9 – 4.8 95% C.I.). There was no significant difference in stunting among boys and girls (P=0.483). Compared to the Somali Demographic and health survey 2020, the prevalence of stunting was significantly different (P=0.000). The DHS was conducted in 2019-2020 and represented the whole Puntland state. Comparison with latest survey done in same region by other partners e.g Badhan indicated a lower stunting

⁷ UNICEF, WHO, World Bank. Levels and Trends in Child Malnutrition. Joint Child Malnutrition Estimates. New York, NY: United Nations International Children's Fund; Geneva: WHO; Washington, DC: World Bank, 2012. Available from: http://www.who.int/nutgrowthdb/estimates/en/ [Google Scholar]

⁸ World Health Organization. Physical Status: the Use and Interpretation of Anthropometry. Report of a WHO Expert Committee. Technical Report Series No. 854. Geneva: WHO, 1995. Available from:

http://www.who.int/childgrowth/publications/physical_status/en/ [PubMed] [Google Scholar]

level of 4.6%⁹. SMART surveys by WVI Garowe and Burtinle in 2018 (almost similar time with Somalia DHIS 2019-2020) shows a prevalence of 7.3% and 9.6% respectively. The Food security and analysis unit (FSNAU) data also indicates varied stunting level based on livelihood zones corresponding to Puntland state as shown in Figure 5. Comparison with latest survey done in same region e.g Badhan indicated a lower stunting level of 4.6%¹⁰. The design effect of stunting in this survey was 3.53 indicating a high difference (heterogeneity) in stunting across the assessment villages (clusters). Additionally, as Stunting is based on comparison of height-for-age scores, the results may have been impacted by recall bias as only 20.6% of children had birth documents.

	All	Boys	Girls
	n = 630	n = 316	n = 314
Prevalence of stunting	(62) 9.8 %	(35) 11.1 %	(27) 8.6 %
(<-2 z-score)	(6.1 - 15.6 95% C.I.)	(7.3 - 16.6 95% C.I.)	(4.3 - 16.4 95% C.I.)
Prevalence of moderate	(49) 7.8 %	(26) 8.2 %	(23) 7.3 %
stunting	(4.9 - 12.2 95% C.I.)	(5.1 - 13.0 95% C.I.)	(3.8 - 13.6 95% C.I.)
(<-2 z-score and >=-3 z-score)			
Prevalence of severe stunting	(13) 2.1 %	(9) 2.8 %	(4) 1.3 %
(<-3 z-score)	(0.9 - 4.8 95% C.I.)	(1.3 - 6.0 95% C.I.)	(0.2 - 6.3 95% C.I.)

Table 14: Prevalence of stunting based on height-for-age z-scores and by sex



Figure 5: Trends analysis of stunting 2017 0 2023 (FSNAU)

Stunting was more prevalent in young children from 6 to 29 months as shown in Table 15. This could be attributed to poor infant and young child feeding practices such as early introduction of complementary foods, lack of exclusive breastfeeding for the first six

⁹ Integrated Nutrition and Mortality SMART Survey Report - Erigabo, Badhan, Dhusamareb and Dhobley Districts, Somalia (October/November 2023)

¹⁰ Integrated Nutrition and Mortality SMART Survey Report - Erigabo, Badhan, Dhusamareb and Dhobley Districts, Somalia (October/November 2023)
		Severe stunting (<-3 z-score)		Moderate stunting (>= -3 and <-2 z- score)		Normal (> = -2 z score)	
Age (mo)	Total no.	No.	%	No.	%	No.	%
6-17	122	2	1.6	13	10.7	107	87.7
18-29	162	4	2.5	19	11.7	139	85.8
30-41	164	3	1.8	8	4.9	153	93.3
42-53	127	4	3.1	7	5.5	116	91.3
54-59	55	0	0.0	2	3.6	53	96.4
Total	630	13	2.1	49	7.8	568	90.2

months, and improper food preparation which hinder proper growth and development. Table 15: Prevalence of stunting by age based on height-for-age z-scores

There was a notable difference in stunting across districts as shown in Table 16. Prevalence was high in Dangorayo and lowest in Burtinle. However, the difference was not significant (P=0.097).

Table 16: Prevaler	nce of stunting acro	ss districts
--------------------	----------------------	--------------

District	Stunting prevalence	95%	C.I.
Burtinle	6.8%	3.8%	11.9%
Dangorayo	23.5%	9.1%	48.6%
Eyl	13.8%	7.4%	24.5%
Garowe	10.1%	7.4%	13.5%

3.3.4 Outcome Module 1 Indicator 3: % Increase of funding provided annually by subnational governments for local health and nutrition facilities in target districts

Indicator	Baseline values	Target
% increase of funding for	Puntland State 4.4%	>5%
health and nutrition	(\$ 1.1M out of \$25M total budget)	
services from national &		
County budgets		

Somalia currently has some of the lowest health and well-being indicators globally. Extended periods of conflict and insecurity exacerbated by recurrent extreme droughts and subsequent food insecurity have devastated the health status of the population and severely damaged its fragile health system. Droughts result in displacements, which leads to unprecedented levels of malnutrition, health emergencies and epidemics. The country's overall morbidity and mortality remain very high, particularly among women and children. Somalia currently has the world's third-highest child mortality rate. One out of seven children die before the age of five¹¹. This calls for coordinated and enhanced financing to address the health needs at a population level. The current health and nutrition budget in Puntland State stands at 4.4% funded (\$ 1.1M out of \$25M total budget.

¹¹ Somalia Health Cluster strategy 2023-2025

3.3.5 Outcome Module 1 Indicator 4: % increase of key government officials at national and sub-national levels who understand and actively advocate (participate) for the application of basic nutrition and health rights as enshrined in international and local laws

Indicator	Baseline values	Target
% increase of key government officials at	10	
national and sub-national levels who	(2 State level; 8 District level KII	
understand and actively advocate	with Head of Nutrition Puntland	
(participate) for the application of basic	Ministry of Health TBD	
nutrition and health rights as enshrined		
in international and local laws		

The Somali health workforce comprises various groups of workers with differences in formality, employment status, and specialization. Over the past three decades, the number of training institutions has increased, resulting in the production of a significant number of health professionals. Additionally, there are considerable numbers of health workers operating informally within the health sector, whose contributions need to be acknowledged to accurately assess the size and composition of the workforce. However, unemployment among health workers is likely to be a significant issue.

The 2016 Somali Human Resources for Health (HRH) Development Policy was formally endorsed by the health advisory board and remains relevant today. As part of the Ministry of Health's "Damal Caafimaad" project, there is a strong emphasis on investing in the licensing, regulation, and accreditation of the health workforce. This prioritization reflects the importance of ensuring quality standards and competency among healthcare providers in Somalia.

Advocacy forums exist at both national and regional levels, involving various stakeholders such as NGOs, government agencies, civil society groups, and academic institutions. The MOH has assigned each provinces Regional Officers (Regional Health Officer and Regional Nutrition Officer) and District Officers (District Health Officer and District Nutrition Officers) for each district whose roles are to manage and coordinate the promotive, preventive, curative and rehabilitative services in their different assigned geographical area and directly oversee the operations of the different public sector care providing facilities of the region or district. They closely liaise with the private sector, the regional and district authorities and the partner organizations assisting the Puntland diverse health interventions

"Various channels, organizations, platforms, and forums actively advocate for nutrition and health rights worldwide. This includes NGOs, government agencies, civil society groups, academic institutions. Together, they work to raise awareness, influence policies, and implement programs aimed at improving nutrition and health outcomes for individuals and communities globally. Advocacy meetings are held on a quarterly basis, providing stakeholders with regular opportunities to discuss and address issues related to advocating for nutrition and health rights." KII with Head of Nutrition Puntland Ministry of Health, Garowe

3.3.6	Outcome Module 2 Indicator	1: % of children<6 months who are exclusively
	breastfed (EBF)	

Indicator	Pre-baseline Values	Baseline values	Target
% of children<6 months who	32%	Overall, 50%	5% from baseline
are exclusively breastfed	(Source:	Male, 66.7%	by the end of the
(EBF)	Puntland DHS)	Female, 33.3%	project

a. Introduction to breastfeeding

Breastfeeding is one of the effective interventions that can reduce 55% to 87% of neonatal mortality and morbidity, particularly due to infections like diarrhea, neonatal sepsis, and pneumonia¹²¹³. WHO Global Strategy¹⁴ for Infant and Young Child Feeding recommends that infants be breastfed within one hour of birth, WHO guidelines on maternity care state that "all mothers should be supported to initiate breastfeeding as soon as possible after birth, within the first hour after delivery". Early initiation of breastfeeding confers a host of benefits. Putting newborns in the breast necessitates skinto-skin contact, and this closeness between mother and baby in the moments after delivery provides both short- and long-term benefits. Immediate skin-to-skin contact helps regulate the body temperature of newborns and allows their bodies to be populated with beneficial bacteria from their mother's skin. Putting babies to the breast within an hour of birth is strongly predictive of future exclusive breastfeeding. Children who are not put to the breast within the first hour after birth face a higher risk of common infections and death. Majority of children were reported to have ever breastfed, breastfed the previous day, timely introduced to breastmilk (immediately or within one hour) and fed on colostrum as shown in Figure 6.

¹² Edmond KM, Kirkwood BR, Amenga-Etego S, Owusu-Agyei S, Hurt LS. Effect of early infant feeding practices on infection-specific neonatal mortality: an investigation of the causal links with observational data from rural Ghana

¹³ Acceptable medical reasons for use of breast-milk substitutes. Geneva: UNICEF-World Health Organization; 2009.

¹⁴ Global Strategy for Infant and Young Child Feeding. Geneva: World Health Organization; 2003.



Figure 6: Breastfeeding Indicators

While most of breastfeeding initiation indicators were overall above the recommended threshold of 80%, there existed challenges such as medical complications and awareness that stopped early initiation and colostrum feeding.

"I wasn't able to breastfeed within the first hour due to complications during delivery. Others caregivers do not start breastfeeding immediately due to ack of knowledge about the importance of early breastfeeding initiation" FGD with caregivers 0-23 months in Jawle MCH clinic, Garowe District

b. Exclusive breastfeeding

Exclusive breastfeeding is defined as percentage of infants 0–5 months of age who were fed exclusively with breast milk the previous day prior to the survey. Exclusively breastfed child is 14 times less likely to die in the first six months than a non-breastfed child and breastfeeding drastically reduces deaths from Acute Respiratory Infections (ARI) and diarrhoea, two major child killers (LANCET 2008). Half of the children (50%,66.7%M, 33.3%F,) aged 0-5 months (N=18) were reported to have been exclusively fed on breastmilk the previous day. There was no statistically significant difference in EBF between boys and girls (P=0.157). All children between 0-2 months were exclusively breastfed compared to a lesser amount of those 4-5 months as shown in Figure 7.



Figure 7: Exclusive breastfeeding by age

Continued breastfeeding could prevent half of all deaths caused by infectious diseases between six and 23 months of age. Continued breastfeeding is consistently associated with higher performance in intelligence tests among children and adolescents¹⁵, with children breastfeeding longer than 12 months benefiting the most. Longer periods of breastfeeding may reduce a child's risk of becoming overweight or obese. Continued breastfeeding is defined as the percentage of children 12–23 months of age who were fed breast milk during the previous day. 59.7% (59.4% Male, 60.0% Female) of children 12-23 months were reported to breastfeed the previous day prior to the survey.

3.3.7 Outcome Module 2 Indicator 2 % of women aged 15-49 who used at least 4 antenatal examinations (ANC)

Indicator	Pre-Baseline Values	Baseline values	Target			
% of women aged 15-49 who used at least 4 antenatal examinations (ANC)	6% (Source: Puntland DHS)	32.7% (PLWD 20.0%, no disability 33.1%)	5% from baseline by the end of the project			

a. Antenatal care

Antenatal care (ANC) coverage is an indicator of access and use of health care during pregnancy. The antenatal period presents opportunities for reaching pregnant women with interventions that may be vital to their health and wellbeing and that of their infants. Receiving antenatal care at least four times increases the likelihood of receiving effective

¹⁵ Victora CG, Horta BL, Loret de Mola C, Quevedo L, Pinheiro RT, Gigante DP, Gonçalves H, Barros FC. Association between breastfeeding and intelligence, educational attainment, and income at 30 years of age: a prospective birth cohort study from Brazil. Lancet Glob Health. 2015;3(4):e199–205.

maternal health interventions during the antenatal period. This is one of the indicators in the Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) Monitoring Framework, and one of the tracer indicators of health services for the universal health coverage (SDG indicator 3.8.1).

More than half (69.7%) of women with children under-five had attended antenatal care during their last pregnancies. However, only 32.7% attended ANC for minimum number of 4 times and only 2.7% attended 8 times and over. Those who attended ANC attended it mostly in their first trimesters (between 1 and 3 months).

Question	Response	Freq	%
Saw anyone	Yes	152	72.4%
for	No	54	25.7%
antenatal	Don't know	4	1.9%
Number of	Less than four (1 – 3 times)	99	67.3%
attended	4 and over times (4-8+)	48	32.7%
Trimester of the first visit	1st Trimester	95	65.5%
	2nd trimester	44	30.3%
	3rd Trimester	6	4.2%
Where	At home	18	5.9%
antenatal	Government Hospital	1	0.3%
care service	Dispensary/maternity center	125	41.1%
was	Health center	2	0.7%
received	Private hospital/clinic	4	1.3%
	Outreach clinic	2	0.7%
	Can't recall ¹⁶	152	50.0%

Table 17: Antenatal care results

Across districts, Eyl had the highest over 4 ANC visits compared to others. This difference was however not significantly different (P=0.313).

¹⁶ The cant recall here implied that the respondents could not categorize the type of facilities e.g a health centre, a public, an MCH. This is possible in context of Somalia where migration is high



Figure 9 shows various services received. Blood pressure measurements, body measurements, diet counseling and counseling on danger signs, and provision of tetanus toxoids were the services received most. Over half (54.8%) of the mothers had received their tetanus vaccination in their last pregnancies verified by health records.





b. Postnatal care

Postnatal care plays a crucial role in ensuring the health and well-being of both the mother and the child after childbirth. The period immediately following delivery is a critical time for monitoring and support as both the mother and the newborn undergo significant physical and emotional adjustments. Postnatal care contributes to mother and

child health by monitoring and management of complications, breastfeeding support, physical recovery for the mother and newborn care and immunizations.

Health centers (48.1%) and home deliveries (41.8%) were the most common as shown in Table 18. Midwives (72.1%) and nurses (25.8%) were the most sought to assist in deliveries. Untrained birth attendants also supported in deliveries of a proportion of mothers especially mothers with disabilities.

Theme	Response	Over	all	By HH head gender		By respondent disability	
		Freq	%	Male	Female	No disability	disability
Place of	At home	157	41.8%	39.4%	48.5%	41.5%	47.1%
giving	Hospital	30	8.0%	6.9%	11.1%	8.1%	5.9%
birth	Dispensary/ maternity center	2	0.5%	0.4%	1.0%	0.6%	0.0%
	Health center	181	48.1%	52.0%	37.4%	48.5%	41.2%
	Other public facility	1	0.3%	0.4%	0.0%	0.3%	0.0%
	Private hospital/clinic	3	0.8%	1.1%	0.0%	0.6%	5.9%
	Other	1	0.3%	0.0%	1.0%	0.3%	0.0%
	Do not know	1	0.3%	0.0%	1.0%	0.3%	0.0%
Who	Doctor	23	6.1%	7.9%	1.0%	6.1%	5.9%
assisted	Nurse	97	25.8%	26.4%	24.2%	25.6%	29.4%
with	Midwife	271	72.1%	68.6%	81.8%	72.4%	64.7%
the delivery	Other health professional	19	5.1%	5.4%	4.0%	5.3%	0.0%
	Trained traditional birth attendant	44	11.7%	14.4%	4.0%	12.0%	5.9%
	Untrained trad birth attendant	21	5.6%	7.2%	1.0%	5.0%	17.6%
	Community health worker	8	2.1%	2.2%	2.0%	2.2%	0.0%
	Relative/friend	3	0.8%	1.1%	0.0%	0.8%	0.0%
	Don't know	4	1.1%	0.0%	4.0%	1.1%	0.0%

For mothers who delivered at the health facilities (57.7%), 92.1% of them had their health checked on while they were still in the facility. They were checked on by nurse/midwife (88.0%), doctor (9.4%), auxiliary midwife (2.1%) and traditional birth attendant (0.5%).

3.3.8 Output 2.1 Indicator 1: # of health facilities in target districts providing gendersensitive primary care in nutrition and health and SRHR

Indicator	Baseline values	Target at design phase
# of health facilities in target	78%	TBD
districts providing gender-	(29 out of 37)	
sensitive primary care in		
nutrition and health and SRHR		

Gender-sensitive primary health care refers to health services that recognize and address the different health needs, challenges, and barriers faced by individuals based on their gender, ensuring equitable access and treatment for all. Gender-sensitive primary care in nutrition and health and Sexual and Reproductive Health and Rights (SRHR) is a crucial aspect of healthcare that addresses the specific needs, experiences, and challenges faced by individuals based on their gender identities. By integrating these principles into primary care practices related to nutrition and health as well as SRHR, healthcare providers can better meet the diverse needs of their patients and contribute to improved health outcomes for all individuals, regardless of gender identity.

In Puntland, there is a Health Act that has been endorsed by ministries, approved by parliament, and signed by the president that provide guidance to health planning, implementation and review. Among the 37 health facilities supported by WVI, all of them provide basic nutrition services (Growth Monitoring, Prevention of malnutrition counseling, Treatment of malnutrition among children under-five). However, none provide specialized family planning and STI testing and counseling (the available SRHR services is ANC and postnatal care). The low provision of SRHR services is could be attributed to low demand influenced by socio-cultural and religious beliefs. FGDs with women revealed that uptake of contraception is not embraced since it's not supported by societal and religious beliefs.

"We don't have contraceptives in our community. Their use is not acceptable in our society for the sake of religion. Therefore, we don't use them" FGD with Women aged 15-49years in Badey, Eyl District

H&N facilities in project areasIndicatorBaseline valuesTarget at design phase# of increase yearly nutrition & SRHR
consultations in H&N facilities in project
areasSRHR 61,585
Nutrition: 173,477TBD

3.3.9 Output 2.1 Indicator 2 # of increase yearly nutrition & SRHR consultations in H&N facilities in project areas

Nutrition and SRHR are fundamental components of overall health and well-being. Integrating consultations for both allows healthcare providers to take a holistic approach to patient care, addressing multiple dimensions of health in a comprehensive manner. Consultations that address both nutrition and SRHR enable healthcare providers to implement preventive health strategies more effectively. For example, discussing nutrition alongside contraceptive counselling can help individuals make informed choices that support their overall health and well-being. Vulnerable populations, such as adolescents, pregnant individuals, and individuals from marginalized communities, may face challenges related to nutrition and SRHR. Integrated consultations can provide tailored support and interventions to address the unique needs of these populations. According to MoH health information systems, the average SRHR consultations in WVI supported facilities was 5,132 while nutrition consultations was 173,477 as shown Table 19 and Table 20 respectively

Service	2023 Consultations	Monthly average
Delivery in facility	11,426	952
Delivery by other cadres	506	42
PHU PNC (48+ hrs)	234	20
PHU PNC (0 - 48 hrs)	420	35
PHU PNC 2nd Promotional	273	23
Visit		
PHU HP Family Planning/Birth	336	28
spacing		
Antenatal client 1st visit	20,114	1,676
Antenatal client 2nd visit	15,344	1,279
Antenatal client 3rd visit	12,932	1,078
Total	61,585	5,132

Table 10.		Itationa	in \////	supported	facilities
Table 19:3	SKHK CONSU	litations		supported	racilities

Table 20: Nutrition services

Nutrition	Number of children
Child screened MUAC	76,071
Child screened weight for height	74,792
Child identified with MAM	15,811
Child identified with SAM	6,803
Total	173,477

3.3.10 Output 2.2 Indicator # of number of community-based organizations/groups with capacity to prevent, monitor and address malnutrition from a gender perspective

Indicator	Baseline values	Target at design phase
# of number of community-based organizations/groups with capacity to prevent, monitor and address malnutrition from a gender perspective	14 (Total: 26)	TBD

Community-based organizations (CBOs) play a crucial role in preventing, monitoring, and addressing malnutrition from a gender perspective. These organizations often have a deep understanding of local contexts and are well-positioned to implement targeted interventions. CBOs that specifically focus on nutrition interventions can adopt a gender-sensitive approach to address the unique nutritional needs of women and girls. These programs may include initiatives such as micronutrient supplementation, nutrition counselling, and support for breastfeeding and complementary feeding practices.

This indicator was assessed by secondary data from Puntland community development representative which registers CBOs (<u>info@puntngo.org</u>) on the registered CBOs in Nugaal region. CBOs meeting criteria for this indicator were defined as local, grassroots organizations that actively engage in initiatives to combat malnutrition while incorporating gender-specific needs and challenges. Their focus includes:

- Prevention: Implementing programs that promote nutritional education, food security, and health services aimed at preventing malnutrition.
- ✓ Monitoring: Regularly tracking and assessing the nutritional status of individuals, particularly women and children, to identify and address malnutrition early.
- ✓ Addressing Malnutrition: Providing targeted interventions, such as food supplements, medical care, and support services, to those suffering from malnutrition, with a special emphasis on vulnerable groups like women and girls.

Chancinges			
District	Number of CBOs	CBOs combating malnutrition while incorporating gender-specific needs and challenges	Proportion
Burtinle	5	2	40%
Dangoroyo	4	2	50%
Eyl	5	3	60%
Garowe	12	7	58%
Total	26	14	54%

Table 21:CBOs combating malnutrition while incorporating gender-specific needs and challenges

3.3.11 Outcome Module 3: Indicator 1% of children aged 6-23 months receiving minimum acceptable diet

Indicator	Baseline values	Target at design phase
% of children aged 6-23 months receiving minimum acceptable diet	10.2% (Boys 10.1%, Girls 10.3%)	10% from baseline by the end of the project

a. Introduction to complementary feeding

At the age of 6 months, an infant's need for energy and nutrients starts to exceed what is provided by breast milk, and complementary foods are necessary to meet those needs. An infant of this age is also developmentally ready for other foods that are safe, nutritious and adequate. If complementary foods are not introduced around the age of 6 months, or if they are given inappropriately, an infant's growth may falter. 68.8% (57.1% male, 77.8% female) of children 6-8 months (N=32) had been introduced to complementary foods. Introduction to complementary food was influenced by advice from relatives, health workers and cultural beliefs that a child is only ready for food when a child sits up by themselves.

"Mothers often follow traditional practices passed down through generations or based on advice from elder family members. Some mothers rely on guidance from healthcare providers or community health workers. Cultural beliefs and readiness cues from the baby, such as sitting up independently, influence the decision." FGD with caretakers of children 0-23 months, Jawle, Garowe District

b. Minimum dietary diversity

The guiding principles from the World Health Organization (WHO) emphasize the importance of providing a diverse diet to both breast-fed and non-breastfed children aged 6–23 months to meet their nutritional needs adequately. Minimum dietary diversity, a key indicator, measures the proportion of children 6-23 months who consumed foods from at least five out of eight defined food groups in the preceding day. According to the data, only a small percentage (14.3% 10.0 – 19.9 95% C.I) of children met this minimum dietary diversity criterion. It is noteworthy that most of these children were breastfed and were additionally given foods such as grains, meats, milk, and fruits as shown in Table 22.

Food groups	Frequency	Percentage
Group 1: Grains, Roots & Tubers e.g. bread, bulger, pasta,	106	54.1%
potato, beet root, porridge		
Group 2: Legumes and Nuts e.g. lentils, beans, nuts	38	19.4%
Group 3: Dairy Products (Milk such as tinned, powdered,	47	24.0%
condensed or fresh animal milk)		
Group 4: Flesh meats and offals e.g. Beef, mutton, chicken, liver,	57	29.1%
kidney, fish		
Group 5: Eggs	35	17.9%
Group 6: Vitamin A fruits and vegetables e.g. carrots, dark leafy	54	27.6%
greens (Kales, spinach), Mangoes		
Group 7: Other fruits and vegetables e.g. tomatoes, citrus fruits,	27	13.8%
bananas, apples, cabbage, onions, eggplant, , watermelon		
Group 8: Breast Milk	134	84.8%

Table 22: Dietary diversity for children 6-23 months

The poor dietary diversity was linked to financial constraints and awareness. Food insecurity also limited household access and utilization of nutritious foods.

"The main barriers to accessing healthcare and nutritious food in the community/District include; financial constraints, limited availability of healthcare facilities and services, low awareness of healthcare practices and food insecurity." KII with Facility in Charge, Wabeeri

c. Minimum Meal Frequency

Minimum meal frequency refers to the percentage of children aged 6–23 months who consumed solid, semi-solid, or soft foods (including milk feeds for non-breastfed children) the minimum number of times or more during the previous day. The minimum number of times is defined based on the age and breastfeeding status of the child:

- Breastfed infants aged 6–8 months should receive solid, semi-solid, or soft foods at least two times per day.
- Breastfed children aged 9–23 months should be fed solid, semi-solid, or soft foods at least three times per day.
- Non-breastfed children aged 6–23 months should receive solid, semi-solid, or soft foods or milk feeds at least four times per day, with at least one of the four feeds being a solid, semi-solid, or soft feed.

Overall, less than half of children 6-23 achieved their minimum meal frequency. The proportion was even lower in non-breastfed children as shown in Table 23Table 23.

Category	Status	Overall	Boys	Girls
Breastfed infants aged 6-8 months	Not Achieved	34.5%	46.2%	25.0%
Breastfed children aged 9-23 months	Not Achieved	41.9%	43.5%	40.7%
	Achieved	58.1%	56.5%	59.3%
Non-breastfed children aged 6–23 months	Not Achieved	62.5%	50.0%	71.4%
	Achieved	37.5%	50.0%	28.6%
Minimum meal frequency overall 6-23 months	Not Achieved	54.6%	57.3%	52.3%
	Achieved	45.4%	42.7%	47.7%

Table 23: Minium Meal Frequency

d. Minimum acceptable diet

WHO guiding principles on feeding the breastfed child and the non-breastfed child recommend that children aged 6–23 months be fed meals at an appropriate frequency and in a sufficient variety to ensure, respectively, that energy and nutrient needs are met¹⁷. This indicator combines information on minimum dietary diversity and minimum meal frequency, with the extra requirement that non-breastfed children should have received milk at least twice on the previous day. The minimum acceptable diet is defined as:

- for breastfed children: receiving at least the minimum dietary diversity and minimum meal frequency for their age during the previous day;
- for non-breastfed children: receiving at least the minimum dietary diversity and minimum meal frequency for their age during the previous day as well as at least two milk feeds.

A significant low proportion (10.2% overall, 10.1% boys, 10.3% girls) achieved their minimum acceptable diet. Like the minimum meal frequency, the proportion was lower in non-breastfed children compared to breastfed children.

Category	Status	Overall	Boys	Girls
Minimum acceptable diet	Not			
breastfed	Achieved	85.8%	84.8%	86.7%
	Achieved	14.2%	15.3%	13.3%
Minimum acceptable diet non-	Not			
breastfed	Achieved	95.8%	100.0%	92.9%
	Achieved	4.2%	0.0%	7.1%
Overall Minimum acceptable	Not			
diet	Achieved	89.8%	89.9%	89.7%
	Achieved	10.2%	10.1%	10.3%

Table 24: Minimum Acceptable diet

¹⁷ Guiding principles for complementary feeding of the breastfed child. Washington: Pan American Health Organization-World Health Organization; 2003

None of the children in Dangorayo and Burtinle achieved the minimum acceptable diet as shown in Figure 10. Accessibility to nutritious food either from production or purchase as well as poor awareness on good child feeding were cited as barriers to optimum child feeding.



Figure 10: Minimum acceptable diet by districts

"Barriers to mothers' access of nutritious foods in Budunbuto are: There are no home gardening and farming. Because of lack of irrigation water. Most of households are male headed. Mother lacks awareness on how to make nutritious food to feed their babies" KII with CHW, Baunbuto, Dangarayo District

3.3.12 Output 3.1 Indicator 1# of HH growing nutrient-rich crops

Indicator	Baseline values	Target at design phase
# of HH growing	0	TBD
nutrient-rich crops		

Growing a variety of nutrient-rich crops increases the dietary diversity of households, providing children with access to a broader range of essential nutrients. Including fruits, vegetables, legumes, and grains in the diet ensures that children receive a balanced intake of vitamins, minerals, and micronutrients. Nutrient-rich crops such as dark leafy greens (e.g., spinach, kale), orange-fleshed sweet potatoes, carrots, and pulses (e.g., lentils, beans) are rich sources of key nutrients like vitamin A, iron, zinc, calcium, and folate. Consuming these crops regularly helps prevent micronutrient deficiencies that can adversely affect child health and development.

Some nutrient-rich crops, such as dark green vegetables, are known for their lactogenic properties, which can help breastfeeding mothers increase milk production. Adequate

breast milk supply is essential for meeting the nutritional needs of infants and young children during the critical early years of life. Diversifying agricultural production to include nutrient-rich crops builds resilience to food insecurity and malnutrition, particularly in vulnerable communities. By reducing reliance on single staple crops and incorporating a variety of nutritious foods into local food systems, households can better withstand shocks and stressors that affect food availability and access.

A big proportion (76.3) of households reported not owning either vegetable or fruit garden, with 18.5% having only a vegetable garden, 2.0% having only a fruit garden, and 3.3% having both. The majority (91.0%) of households do not have access to land for farming. Only 1.3% of respondents had heard of biofortified crops before with none reporting having consumed it in the last seven days.

Question	Response	Overall		by HH head gender		by Disability	
		Freq.	Percent	Male	Female	No	Yes
Own vegetable	Yes, vegetable garden only	74	18.5%	19.7%	15.7%	18.8%	13.0%
and/or	Yes, fruit garden	8	2.0%	2.5%	0.9%	2.1%	0.0%
fruit	Yes, both	13	3.3%	3.9%	1.7%	3.5%	0.0%
garden	No	305	76.3%	74.0%	81.7%	75.6%	87.0%
Access to	Yes	5	1.3%	1.4%	0.9%	1.3%	0.0%
land for	No	364	91.0%	88.1%	98.3%	91.0%	91.3%
farming	Did not answer	31	7.8%	10.5%	0.9%	7.7%	8.7%

Table 25: Access to garden and farming land

3.3.13 Output 3.1 Indicator 2 % of HH with acceptable HH Dietary Diversity Score (HDDS)

Indicator	Baseline values	Target Target at design phase
% of HH with acceptable HH Dietary Diversity Score	71.0%	15% increase
(HDDS)		from baseline

Household dietary diversity can be described as the number of food groups consumed by a household over a given reference period and is an important indicator of food security for many reasons. A more diversified household diet is correlated with caloric and protein adequacy, percentage of protein from animal sources, and household income (Swindale & Bilinsky, 2006).

The HDDS indicator provides a glimpse of a household's ability to access food as well as its socioeconomic status based on the previous 24 hours (Kennedy et al., 2011). Based on SPHERE stands "acceptable" HHDDS is defined as proportion of households who consumed 5 out of the 12 foods groups (16 food groups condensed to twelve). Milk and

milk products, oils and fats, sweets/sugar and cereals were the most consumed food groups as shown in Table 26. The mean HHDS was 6.33 (6.02 - 6.64 95% C.I).

Food grouping	Responses	Frequency	Percent
1	cereals	279	69.8%
2	white roots and tubers	120	30.0%
3	vitamin A rich vegetables and tubers	127	31.8%
	dark green leafy vegetables	88	22.0%
	other vegetables	164	41.0%
4	Vitamin A rich fruits	129	32.3%
	other fruits	98	24.5%
5	organ meat	241	60.3%
	fresh meats	229	57.3%
6	eggs	133	33.3%
7	fish and seafood	88	22.0%
8	legumes, nuts and seeds	195	48.8%
9	milk and milk products	292	73.0%
10	oils and fats	304	76.0%
11	sweets/sugar	311	77.8%
12	spices, condiments, beverages	134	33.5%

Majority of the households achieved the minimum household dietary diversity score (above 5 food groups) and had a high dietary diversity classification based on the 3 categories as shown in Table 27.

Question	Response	Overall	by HH head gender		by Disability	
		Percent	Male	Female	No	Yes
HDDS	Not achieved (<5	29.0%	31.9%	21.7%	29.7%	17.4%
binary	groups)					
categories	Achieved (>5	71.0%	68.1%	78.3%	70.3%	82.6%
	groups)					
HDDS three	High (≥ 9)	29.0%	31.9%	21.7%	29.7%	17.4%
categories	Medium (5-8)	45.2%	40.0%	58.3%	44.0%	65.2%
	Low (≤4)	25.8%	28.1%	20.0%	26.3%	17.4%

Table 27: Minimum dietary diversity score categories

There was significant difference in dietary diversity across the districts (P=0.000) as shown in Figure 11. Dietary diversity was highest in Dangarayo and lowest in Burtinle.



Figure 11: Dietary diversity categorization by districts

Rural livelihood had lower dietary diversity while IDP had the highest as shown in Figure 12. This could be attributed to accessibility of food through purchase or food aid.



Figure 12: HDDS category by livelihood zones

3.3.14 Output 3.2 Indicator 1 % and # of families with adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF minimum criteria

Indicator	Baseline values	Target at design phase				
% and # of families with adequate	10.0%	increased by 20% from				
knowledge and skills in nutrition in	(Female 10.7%, Male	baseline by end of project				
the first 1000 days as per MIYCF	9.1%)					
minimum criteria						
	(n=42)					

Adequate knowledge and skills in nutrition during the first 1000 days of life, which includes pregnancy and the first two years of a child's life, are critical for ensuring optimal growth, development, and long-term health outcomes. This includes nutritional needs during pregnancy, maternal nutrition and health, breastfeeding, complementary feeding, micronutrient supplementation, prevention and management of malnutrition and hygiene and food safety practices. This indicator was defined as children achieving minimum dietary diversity, minimum meal frequency and the proportion of women who consume iron containing supplements during pregnancy. Overall, only caregivers for 10.0% (Female 10.7%, Male 9.1%) of the children had adequate knowledge and skills in nutrition in the first 1000 days as per maternal, infant, and young children feeding (MIYCF) minimum criteria as shown in Table. 28

Indicator	Overall	Female headed respondent	Male Headed respondent
Minimum Meal Frequency	46.6%	49.5%	43.2%
Minimum Dietary diversity	14.7%	15.5%	13.6%
Iron folic supplementation	70.7%	69.9%	71.6%
adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF minimum criteria	10.0%	10.7%	9.1%

Table 28: adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF minimum criteria

3.3.15 Output 3.2 Indicator 2 # and percent of primary caregivers with improved knowledge and practice in IYCF practices

Indicator	Baseline values	Target at design phase
# and percent of primary caregivers with improved knowledge and practice in IYCF practices	68.5% (N=274) Female-headed 68.8% Male-headed 58.3% (n=274)	increased by 20% from baseline by end of project

Improved knowledge and practice in infant and child feeding practices are closely linked to positive child health outcomes. Increased awareness and adherence to exclusive breastfeeding for the first six months of life contribute to improved child health outcomes. Breast milk provides essential nutrients and antibodies that protect against infections, reducing the risk of diarrhea, respiratory infections, and other illnesses in infants. Knowledge of appropriate timing and practices for introducing complementary foods alongside continued breastfeeding at around six months of age ensures that infants receive adequate nutrition for optimal growth and development. Proper complementary feeding practices help prevent malnutrition and micronutrient deficiencies in young children. Understanding the importance of offering nutrient-dense foods such as fruits, vegetables, grains, legumes, and animal-source foods as complementary foods supports healthy growth and development in infants and young children by providing a diverse and balanced diet helps meet children's nutritional needs and reduces the risk of malnutrition. Knowledge of safe feeding practices, including proper food preparation, handling, and storage, reduces the risk of foodborne illnesses and ensures the safety of infant and child food consumption while hygienic practices during feeding help prevent infections and promote overall child health. Key IYCF Indicators are selected as below.

		-	
Category	Sub-category	Knowledge	Practice
Breastfeeding	Breastfeeding within	83.3%	81.8% Put to breast within 1
Promotion and	one hour after birth		hour after delivery
Support	Exclusive	80.0%	50.0% of children 0 – 5 months
	breastfeeding for 6		exclusively breastfed
	months		
Complementary	Introduction of	93.5%	68.8% of children 6 - 8 months
feeding	complementary		introduced to complementary
practices	foods		food
	Food diversification	49.0%	14.3 of children 6-23 months
			achieved minimum dietary
			diversity
Maternal health	Iron and Folic Acid	73.3%	69.2% of mothers consumed
	supplementation		iron folic in their last pregnancy

Table 29: IYCF knowledge versus practices

This indicator measures knowledge and practices on maternal and infant and young child feeding related aspects was assessed around 5 key areas as described in **annex 4**:

- ✓ Breastfeeding Promotion and Support
- ✓ Complementary Feeding Practices
- ✓ Maternal Health
- ✓ Nutrition
- ✓ Hygiene

The minimum score was 10 out of possible 15 scores. More than half of the respondents (68.5%, n=274) had adequate knowledge of nutrition in the first 1000 days as shown in Figure 13. Female respondents had higher knowledge and skills compared to male.



Figure 13: Primary caregivers with improved knowledge and practice in IYCF practices

3.3.15.1.Knowledge, Attitudes and Practices on nutrition (KAP)

The majority of respondents (90.3%) correctly identified that the first food a newborn should receive is only breastmilk. Additionally, 83.8% knew that a newborn should be put to the breast within the first hour after birth. Knowledge about exclusive breastfeeding is high, with 80% having heard of it and 99.1% understanding that it means the infant gets only breastmilk. Furthermore, 91% of respondents are aware that babies should receive only breastmilk for the first six months.

a) Benefits of Exclusive Breastfeeding

The benefits of exclusive breastfeeding are well-recognized among respondents. A significant proportion (88.3%) acknowledged that it protects the baby from illness, while 64.3% noted it helps the baby grow better. Other recognized benefits include the comprehensive nutrition provided by breastmilk (57%), a reduced likelihood of the mother getting pregnant (39.3%), and delayed return of the mother's menstrual cycle (26.3%).

b) Complementary Feeding and Nutritional Practices

When asked about the age at which babies should start eating foods in addition to breastmilk, 93.5% correctly responded with six months. Respondents also suggested various ways to make rice porridge more nutritious, with 65% recommending animal-source foods and 56.8% suggesting pulses and nuts. For pregnant women, 77.3% advised the use of iron tablets and 69% recommended increasing meal frequency.

c) Nutrition supplements

A significant majority (73.3%) are aware of the two primary supplements needed during pregnancy: iron supplements and folic acid supplements, with recognition rates of 94.9% and 91.5% respectively. The importance of taking folic acid supplements during pregnancy is widely recognized among respondents, with 73.3% identifying its crucial role in the normal development of the nervous system of the unborn baby, including the brain, spine, and skull. Additionally, 69.5% understand that folic acid helps prevent birth defects and abnormalities related to the nervous system. A small percentage (1.0%) mentioned other reasons, while 8.3% of respondents were unsure about the importance of folic acid supplements.

d) Addressing Undernutrition:

Respondents demonstrated an understanding of the signs of undernutrition, with 77.5% citing lack of energy and weakness as indicators. The primary reasons for undernutrition identified were not getting enough food (89%) and disease-related issues preventing food intake (54.8%). Economic constraints are a significant barrier, with 80.3% noting that not having enough money to buy food is a major reason people do not get enough food.

3.3.16 Output 4.1 % increase in local CSO capacity assessment score

Indicator	Baseline values	Target at design phase
% increase in local CSO capacity assessment score	57.7%	TBD

The Organizational Capacity Assessment Tool is part of a process that seeks to assess the capacity of any organization across nine dimensions of organizational capability and identify areas for further development. The dimensions are:

1. Identity & Constituency - assess the CSO strategic directions including the vision and mandate

- 2. Governance and Leadership Assess the CSO governance structures, roles and responsibilities
- 3. Strategy Systems & Structure Includes financial, human resources, procurement and security management
- 4. Managing Our Resources proposal development process, donor engagement and reporting, sustainability and diversified funding
- 5. Shaping Our Work Assess CSO presence of M&E plan/M&E framework, standardized and disaggregated data, feedback mechanisms and information sharing, needs assessment, quality baselines and evaluations
- 6. Implementation and Learning Assess CSO areas of approved project implementation plans, financial budgets, project cycle management, risk management, documentation and lessons learnt
- 7. Participation & Protection Assesses areas of beneficiaries targeting, beneficiary consultation, participatory approach, safeguarding / protection policy and gender
- 8. Working with Partners Assess coordination and government engagement, donor collaboration, networks and partnerships
- 9. External Relations Assess communications policy, beneficiary protection, formal consent and communication staffing

Following implementation of a Capacity Development plan, it can be used to reassess capacities. The capacity assessment was conducted on 31st March 2024 with Puntland Minority Women Development Organization, a CSO supported by World Vision. The scoring for this CSO is as shown in Table 30.

Category	Capacity	Rationale
Category	Assessment	
A. Identity & Constituency	75.0%	The five-year plan aims to address the needs of minority groups by improving access to health, education, and livelihood opportunities. It also focuses on advocacy, empowerment, and involving these groups in community decision-making activities, in line with the PMWDO constitution
B. Governance and Leadership	70.0%	The organizational structure includes senior managers, the executive director, and coordinators holding weekly meetings. All staff meet weekly, project coordinators and the program manager meet monthly, and there are quarterly executive meetings. The Board of Directors (BOD) meets annually. Coordinators report to the manager and then to the executive director. The organization currently has 35 staff members and promotes diversity, with 3 male and 2 female BOD members. The BOD meets annually to share minutes and review the constitution.

Table 30: Capacity Assessment Scores

C. Strategy		The organization relies on incident reports shared with all
Systems &	50.0%	INGOs and LNGOs. Reports specific to PMWDO are
Structure		periodically provided by project staff.
D. Managing Our Resources	50.0%	The organization has secured emergency funding from SHF by competing with various agencies and conducting prior assessments to identify needs, which helped them win a grant in the Mudug region. They have extensive experience in preparing project reports and have successfully implemented projects with UNICEF, BIZ, BKH, and SHF in the areas of WASH, Education, Livelihoods, and Protection. The program manager and project coordinators are responsible for writing project reports. While emergency projects are common in their area, PMWDO lacks a strategy for sustainability and a resource mobilization strategy, despite having implemented numerous projects and shared sample proposals.
E. Shaping Our Work	60.0%	The organization has a project-level Monitoring and Evaluation (M&E) plan but lacks a comprehensive M&E framework and a dedicated M&E technical team due to funding issues. They follow donor guidance for maintaining registers. Complaints are addressed directly by project staff, either via phone or by beneficiaries visiting the office. Needs assessments are conducted periodically, and baseline and evaluation assessments are performed when the budget allows, with some samples shared with assessors.
F. Implementation and Learning	65.0%	The organization follows a project tracking implementation plan that is approved by the Senior Management Team (SMT) and then implemented accordingly. The finance team uses a budget template to track spending and remaining balances. Project activities are planned, implemented, and monitored at the end of the project period. While there is no regular risk management team, risks are addressed as they arise. Lessons learned from project implementation are documented. They need to share information about one of the mentioned projects.
G. Participation & Protection	70.0%	The organization routinely consults with communities and is familiar with community structures, selecting beneficiaries based on these structures and their vulnerabilities. PMWDO is closely linked with various community members and is aware of those needing special support. Although their policy is currently in draft form and requires improvement, they integrate protection messaging into their programming using awareness and IEC (Information, Education, and Communication) materials.

H. Working with Partners	50.0%	The organization participates in coordination with other stakeholders and works with line ministries. They are involved in the Protection Committee for SHF and the Strategy Advocacy Group. PMWDO collaborates with numerous donors, including UN OCHA for SHF projects, and is a member of the Somali NGO Consortium.
I. External Relations	75.0%	The organization has a draft policy and occasionally invites local media to display certain activities to the community. They use social media platforms like Facebook to communicate their messages. They obtain signed consent forms before using individuals' photos. Staff job descriptions (JD) and terms of reference (TOR) are in place, and the human resource officer maintains these files at the PMWDO office.
Total	57.7%	Some deficiencies and significant weaknesses exist within the organization, which may pose moderate to high risks. These issues may not be easily remedied before receiving awards or grants.

The overall score of 57.7 means that the CSO is in emerging phase characterized as some deficiencies, significant weaknesses, not easily remediable before award, moderate to high risk.

3.4 Access to Health Services

3.4.1 Access time and means of transport

More than half (56.5%) of respondents reported reaching their nearest health facility in under 15 minutes mainly by walking (95.8%) as shown in Table 31. This suggests good geographical accessibility to healthcare services. However, there are some respondents, particularly those with disabilities, who face challenges in accessing healthcare facilities within a reasonable time frame.

		Overall		by HH head gender		by disability	
Question	Response	Freq.	Percent	Male	Female	No	Yes
Time to	Under 15 min	226	56.5%	57.2%	54.8%	57.3%	43.5%
health facility (one way)	Between 15 and 30 min	114	28.5%	24.2%	39.1%	27.3%	47.8%
	Between 30 and 60 min	30	7.5%	9.1%	3.5%	8.0%	0.0%
	Over an hour	6	1.5%	1.8%	0.9%	1.6%	0.0%
	Do not know	24	6.0%	7.7%	1.7%	5.8%	8.7%
Means of	Walking	383	95.8%	94.7%	98.3%	95.5%	100.0%
transport	Cycling a bike (myself)	4	1.0%	1.1%	0.9%	1.1%	0.0%
	Car-taxi	13	3.3%	4.2%	0.9%	3.5%	0.0%

Table 31: Access time and means of transport

3.4.2 Community health service

Community health workers (CHWs) serve as essential links within health systems, connecting communities with formal healthcare services. Their role is particularly crucial in areas where healthcare facilities are limited or inaccessible, such as remote or marginalized regions. By bringing healthcare services directly to people's homes, CHWs empower individuals to take control of their health. They educate communities on various health topics, including the importance of immunizations, maintaining proper nutrition, and practicing good hygiene.

Through their efforts, CHWs help raise awareness, improve health outcomes, and contribute to the overall well-being of communities they serve. In this study, 61.3% of respondents reported that a CHW had ever visited their home with 54.5% indicating the visits within the last one month. More females' respondents (67.8%) reported CHW visits compared to males (58.6%). The most common topics were breastfeeding (88.6%) and complementary feeding (71.8%). Self-care information was received by 45.3% of respondents, while hygiene information was received by 67.3%.

3.5 Knowledge Attitudes and practices on: Access to Water, Sanitation and Hygiene3.5.1 Water Access

Piped and tap water were the main source of drinking water as shown in Figure 14. Overall, 68.3% of the households got their water from protected sources. The majority of the households (60.2%) treat their drinking water mainly by Boiling (57.8%), adding bleach/chlorine (25.6%), use of water filter (6.9%), Letting it stand and settle (5.2%) and straining it through a cloth (4.6%).



Figure 14: Household source of drinking water

3.5.2 Access to sanitation

Access to sanitation plays a significant role in child malnutrition, particularly in low- and middle-income countries where sanitation facilities are inadequate. Poor sanitation can contribute to malnutrition through various direct and indirect pathways such as contamination of food and water, increased risk of infections, stunting and impaired growth and impact on maternal nutrition. Overall, 11.0% of the households do not have access to sanitation facilities with the situation worse in female headed households (16.5%) and households where the respondents had a disability (26.1%) as shown in Figure 15.



Figure 15: Access to sanitation facilities.

Hygiene

Hand washing with soap is the single most cost-effective intervention in preventing diarrheal diseases. Most of the respondents (83.3%) reported to wash their hands using water and soap. The critical hand washing moments which include after visiting the toilet/latrine, before cooking, before eating and after taking children to the toilet/latrine as shown in Table 32.

Table 32: Handwashing time	es

Critical times	Frequency	Percentage
Before cooking	390	97.5%
Before feeding a child	348	87.0%
After toilet	335	83.8%
After cleaning babies bottom	300	75.0%
Before eating	305	76.3%
After eating	240	60.0%

3.6 **GESI-Assessment**

3.6.1 GESI data collection

This report presents findings from semi-structured interviews conducted with 12 key informants and 83 focus group participants (in 4 male groups and 4 female groups), 63 females and 20 males. The focus group utilized GESI tools that were developed in consultations with WVI team. In-depth interviews were preferred to generate detailed information about the study in line with the qualitative research approach (Valenzuela & Shrivastava, 2002). An interview guide was relied upon to aid in data collection. The guide had key questions asked by field officers who were trained to allow the participants to discuss in detail the various important aspects of the study (Britten, 2006).

3.6.2 **GESI** Analysis

Considering the type of data collected for this study under the qualitative component, thematic approach was broadly adopted for analysis. This is a systematic way of identifying, organizing, analyzing, and reporting repeated patterns in a given set of data (Braun & Clarke, 2006). It was considered relevant for this study because of its epistemological flexibility and consistent use in qualitative inquiries. This analysis approach involves reading sample transcripts from which an analysis framework (i.e. codebook) is generated and applying the framework iteratively to the other transcripts. NVivo, a qualitative data analysis software (QDAS), was used to organize the data under the various codes and categories sited in the codebook. The data is presented in narrative form using thick descriptions guided by the consolidated criteria for reporting qualitative research (COREQ), which emphasizes clarity of study context, methods, and use of unique and illustrative quotes to assure a transferable, dependable, and conformable process. **3.6.3 GESI Findings**

3.6.3.1 Gender equality, disability, and social inclusion

This section explores social inclusion considerations for the GROW ENRICH program in Somalia. It focuses on gender, disability, and other social factors in four districts: Burtinle, Dangorayo, Eyl, and Garowe. We present existing perceptions and attitudes towards gender equality and social inclusion (GESI) based on local knowledge and awareness. We also identify GESI challenges faced by the communities, their perceived ability to overcome them, involvement in relevant ongoing initiatives, and potential partners who can assist. Other key themes presented include: Access, which looks at traditional gender roles and how marginalized groups participate in decision-making as well as access to opportunities, including education, health, nutrition; Systemic issues, which explores broader social and cultural factors affecting GESI in these communities; And well-being of the overall marginalized groups, focusing on the well-being of women and children, including the prevalence of gender-based violence (GBV) and the Do No Harm situation.

3.6.3.2 Perceptions

While perceptions of gender equality vary across communities in Somalia, there is a growing recognition of the importance of equal rights and opportunities for all gender. Perceptions on gender equality remain deeply entrenched in traditional and religious

beliefs, with some individuals attributing its lack to Islamic teachings. Content analysis of the qualitative data revealed that the majority (72%) of the study participants perceived men, women, boys, girls, and persons with disabilities (PWDs) to have the same basic rights. Nearly half (43%) of the respondents who expressed this belief were women whereas one (1) was a PWD. The responses were basically yes & No.¹⁸

Figure 1.1: Do you believe in equal rights for all persons?



Efforts to promote gender equality through education and economic empowerment reflect progress towards fostering inclusive and equitable societies. Sustained efforts to address these challenges require a multifaceted approach that includes advocacy for women's rights. Meanwhile, men are typically not expected to engage in house chores like cooking and cleaning. These tasks are considered beneath their societal role. **R5F:** "Not by any circumstance. The men in my community don't cook, clean, or take care of children because in our tradition men who cook or clean are

week," Hasbahale, Dangorayo

There exists a prevailing notion that women and girls are the responsibility of men, influenced by both tradition and religious teachings. This belief system contributes to the marginalization of women, limiting their autonomy, mainly in decision-making processes at family and community level.

R5 (M): "I am responsible for my mom, sister and my girl (daughter). They have their own rights, but in Islam we don't have same rights," **Budun Buto,** Dangorayo

However, there is a growing recognition among some segments of the society regarding the importance of gender equality and the need for equal access to basic rights, including education and employment opportunities. Some participants acknowledged the superior performance of women and girls in certain domains when given equal opportunities.

R3M: "Girls of school going age should be in school at all costs... And they are actually better than us in education," **Budun Buto**, **Dangorayo**

Education emerged as a critical tool for combating existing gender disparities. Majority (94%) of the study participants (32) who addressed this question during the baseline interviews emphasized the importance of educating girls. Some participants emphasize the importance of educating girls to ensure a more enlightened future generation since they spend more time with children during nurturing.

¹⁸ https://somalia.un.org/en/216450-un-somalia-gender-equality-strategy-2021-2025

https://africa.unwomen.org/en/stories/news/2023/01/somalia-launches-national-action-plan-on-unscr-13-for-women-and-security

https://www.saferworld-global.org/long-reads/international-womenas-day-2022-18-womenas-rights-organisations-you-should-know-about



Figure 1.2: Do you believe that educating girls is important?

R1(M): "I believe girls should be in school at all costs because the girl is the teacher of the house, should be knowledgeable to teach the children." **GESI FGD, Burtinle**

3.6.3.3 Awareness and knowledge

Negative perceptions on gender equality and social inclusion seemed to prevail due to lack of awareness and knowledge about equal rights. Interviews with members of the targeted four districts, including Burtinle, Eyl, Garowe, and Dangorayo, revealed widespread lack of awareness and knowledge regarding gender equality and social inclusion (GESI) among many community members. Five out of six participants in Hasbahale and an equal number of respondents in Budun Butu reported receiving no training on GESI and expressed unfamiliarity with the concept, with some even stating they had never heard of the term before. This lack of awareness extends to equal rights for women, girls, and other marginalized groups, including persons with disabilities (PWD).





R6(F): "No, I have never been trained on Gender... I've never heard of this word before... We have no information about gender rights," **Hasbahale, Dangorayo.**

The few study participants who demonstrated awareness of GESI attributed their knowledge to educational institutions, workplace workshops, and online courses. This indicates the importance of education, employment opportunities, and access to new media technologies in addressing

inequalities (Mathrani & Umer, 2022; Baten et al., 2021; Evans et al., 2020). Awareness on GESI among some participants extended to gender-related challenges within the community, such as traditional gender roles and power dynamics that marginalize women and youth in leadership positions and benefits. Nonetheless, the interviews revealed a disparity in GESI training and mainstreaming, with men often not being targeted or participating.

R3F "No, I haven't had any specific training on gender, but I've learned a lot from listening to the experiences of my female colleagues and family members." **Eyl**

19

R2(F): "Yes, I've participated in workshops on gender mainstreaming in development projects. It's crucial to consider gender dynamics when designing interventions to ensure they're effective and inclusive." **Eyl.**

Overall, the baseline qualitative assessment showed that whereas some community members are aware of unequal gender representation in global leadership and conflicts between religious beliefs and GESI advocacy, there exists a concurrent lack of knowledge about gender-related challenges, including gender-based violence (GBV), hindering the appropriate identification and reporting of inequalities within the communities. Furthermore, the findings suggest a pressing need for comprehensive education and awareness programs on GESI to address the pervasive lack of knowledge and understanding of gender equality and social inclusion within the communities.

3.6.3.4 Local capacity

Considering the perceptions, awareness, and knowledge on gender equality and social inclusion (GESI) expressed by the study participants, it was not surprising to note diverse perspectives about their capacity to address GESI-related challenges within the studied communities. Some respondents expressed confidence in their ability to tackle these issues, citing extensive community engagement, advocacy experience, and relevant training as enabling factors. Female participants uniquely highlighted their personal encounters with GESI-related challenges as their qualification.

R1(F): "Yes, I am capable of helping to address gender equality challenges because I have experienced it many times through friends and relatives and I am victim," **Hasbahale**, **Dangorayo**

However, a significant proportion of respondents expressed incapacity to solve GESIrelated challenges due to perceived lack of knowledge, awareness, and relevant resources. Some have never even heard of GESI issues before, indicating a fundamental gap in understanding. Others cite the absence of training and expertise as barriers to addressing deep-rooted gender inequalities.

R5(F): "No, we may have challenges, but i don't know if we can address those challenges – lack of gender equality, and social inclusion knowledge and awareness," **Budun Buto**, **Dangorayo**

Community elders are seen as having played a significant role in addressing GESI challenges in the past, but there is uncertainty about their effectiveness in addressing contemporary issues. Also, fear of backlash or discrimination seems to hinder the ability of some individuals to advocate for gender equality openly, reflecting broader social barriers to change, including culture and religion.

R6(M): "I face personal barriers such as fear of backlash or discrimination that hinder my ability to advocate for gender equality openly." **Garowe**

Overall, while some community members feel empowered and equipped to address GESI challenges, others face significant barriers rooted in knowledge gaps, resource limitations, and fear of repercussions. Addressing these barriers requires comprehensive education and awareness programs, community engagement, and the creation of supportive environments for advocacy and action.

3.6.3.5 Challenges

The entrenched traditional views on gender roles perpetuate harmful stereotypes, exacerbating social exclusion for women and girls, especially those with disabilities. The perception that women and girls are solely the responsibility of men reinforces gender inequalities, restricting access to education, leadership roles, and economic resources. Gender discrimination, shaped by social norms and religious beliefs, exposes girls to risks like child marriage, teenage pregnancy, and limited education and health services. Religious and cultural norms often hinder gender equality efforts, particularly in education and economic empowerment. Access to education and socio-economic opportunities remains

unequal, favoring boys due to cultural biases and insecurity. According to Presler-Marshall, E., Jones, N., Abdisalam, A., Gebreyehu, Y., Woldehanna, T., & Yadete, W. (2022), cultural factors have left girls with far less access to education than boys, the gender gap being large. For example, the study in Afar region noted that the net enrollment in secondary schools is 23% for boys and 16% for girls. A participant in the GROW ENRICH baseline study particularly emphasized these findings, stating that:

KII1 (F): "Cultural norms, poverty, and insecurity often prevent girls from attending school, leading to lower literacy rates and limited opportunities for their social and economic advancement. The lack of education also affects their ability to make informed decisions regarding health and nutrition," **Eyl**

Gender disparities persist in leadership representation, reflecting traditional gender norms and empowerment imbalances. Women and girls often have limited autonomy and decision-making power in their communities. Lack of awareness about gender equality further perpetuates existing inequalities, with some community members even lacking information about basic human rights. Reporting on the effect of culture on women's participation in political leadership in Mogadishu, Ali & Noah (2022) agree that women's participation in leadership in Somalia is considerably disadvantaged by traditional gender norms, particularly the clan system, through community elders who prefer male leadership and the education of boys.

"Most parents in Mogadishu have a preference for the boy child rather than the girl child and would be more eager to educate a boy compared to a girl. By inference, since most political offices demand certain levels of education, the chances of the girl child compared to the boy child, of holding a political office in Mogadishu is slimmer."

- Ali & Noah (2022, p. 1)

KII1 (F): "Cultural norms, poverty, and insecurity often prevent girls from attending school, leading to lower literacy rates and limited opportunities for their social and economic advancement. The lack of education also affects their ability to make informed decisions regarding health and nutrition," **Eyl**

Although a majority of the participants, nearly 100%, were convinced that no religious and cultural attitudes as well as social inclusion misconceptions hinder meaningful participation of persons with disability (PwDs) in communal and decision making activities, there was an indication that PWDs face barriers related to self-stigma and physical accessibility challenges.

Note taker (G?): "All respondents answered yes to the question on whether personals with disabilities (PWDs) have the right to attend community planning meetings but they don't

attend... It seems that stigma, lack of awareness, and accessibility challenges hinder their participation in community initiatives." **Hasbahale, Dangorayo**

This finding indicates somewhat adherence to the constitutional requirement, Article 11 of the 2012 Constitution of Somalia, which guarantees equal rights to all persons, regardless of gender, religion, socio-economic status, and disability. However, there is also an indication of gaps in the realization of the promotion of enjoyment of equal rights by PWDs as enshrined in Article 12 of the Constitution (Severin, 2022). Literature indicates that social exclusion of persons with disabilities in Somalia is influenced by factors such as ethnic exclusion, lack of support and accessible services, barriers to education and employment, and individual characteristics like age, marital status, self-stigma, and severity of disability (Skrinda, 2021; Trani, 2021; Ionescu, 2019; Pownall & Jahoda, 2017; Wang, 2013). One GROW ENRICH baseline study participant opined:

"Limited awareness and understanding of disability issues lead to their exclusion from community activities... there's also a lack of representation and accommodation for disabled individuals in community planning and decision-making processes."

- Male participant (R7) in GESI FGD, Garowe

Gender-based violence (GBV), including domestic violence and harassment, remains a prevalent concern, though awareness and reporting vary across the studied communities. Limited access to healthcare services, accompanied by stigma, disproportionately affects women, girls, and persons with disabilities (Hossain et al., 2020). Malnutrition, exacerbated by recurring droughts and food insecurity, particularly affects women and children, impacting their physical and cognitive development (Mohamud, 2024; Melesse et el., 2021). Early marriage persists as a significant challenge, perpetuating cycles of harm and limiting their freedom and well-being (Ali & Noah, 2022).

KII1(F): "This community/district has experienced recurring droughts and food insecurity, leading to high rates of malnutrition, particularly among women and children. Malnutrition affects both the physical and cognitive development of girls and women, making them more vulnerable to health issues." **Garowe**

Despite these challenges, some community members deny the existence of gender-related issues, highlighting the need for holistic awareness and interventions to address the existing inequalities.

3.6.3.6 Participation

Various groups, including ethnic minorities, women, girls, persons with disabilities (PWDs), and displaced persons, are recognized as marginalized. Efforts are being made to include youth in community plans and leadership roles, identifying their importance in decision-making processes. Majority (77%) of the study participants who commented on this issue (30) supported this finding.

Figure 1.5: Are women and youth included in community plans and benefit	:s?
---	-----



R2(M): "Women and youth are included in community plans, leadership and benefits in equal footing with men, because our community leadership is for all, and for our village we are equal," **Hasbahale, Dangorayo**

Organizations like Oxfam GB,WVI HPP programme are on the ground emphasizing the need for women's equal participation in development programs and leadership roles to combat existing gender inequalities. While women are increasingly involved in community activities and civil society organizations, achieving gender parity remains a challenge,

especially in economic and political spheres.

R1(F): Increasingly there is a drive to go beyond this and support women's leadership of the institutions and processes that perpetuate the gendered inequalities of wealth and power that reinforce the denial of women's rights, giving particular support and encouragement to transformative leadership that seeks explicitly to challenge those inequalities," **Hasbahale, Dangorayo**

The participation of persons with disabilities (PWDs) in community activities, including planning meetings, is limited despite recognizing their equal rights. Barriers such as lack of awareness, societal stigma, and physical obstacles hinder their participation in decision-making processes. Other limitations include ethnic discrimination, lack of support and accessible services, as well as poor education and employment opportunities, contributing to their self-stigma and exclusion (Skrinda, 2021; Trani, 2021; Ionescu, 2019; Pownall & Jahoda, 2017). Content analysis of relevant qualitative data of the GROW ENRICH baseline study showed a significant support for this finding.

Figure 1.6: Do PWDs participate in community plans and activities?



R1(M): "No, there's often a lack of awareness and infrastructure to facilitate the participation of people with disabilities in community activities." **Garowe R6(M)**: "Girls with disabilities are not allowed in the training Area... They do not participate in matters other than relevant ones," **Burtinle**

R4(F): "Deliberately target women and girls with disabilities in education. They are given less priority to attend schools, and unsurprisingly therefore, generally achieve lower education results. It is important to work with the parents on this," **Hasbahale, Dangorayo**

Efforts to address traditional gender roles perpetuating harmful stereotypes are acknowledged, especially concerning women and girls with disabilities. However, concerns remain regarding healthcare accessibility for mothers and children, with disparities in service availability and capacity Various groups, including ethnic minorities, women, girls, persons with disabilities (PWDs), and displaced persons, are recognized as marginalized. Efforts are being made to include youth in community plans and leadership roles, acknowledging their importance in decision-making processes.

R2M: "Women and youth are included in community plans, leadership and benefits in equal footing with men, because our community leadership is for all, and for our village we are equal," **Hasbahale, Dangorayo**

The participation of persons with disabilities (PWDs) in community activities, including planning meetings, is limited despite recognizing their equal rights. Barriers such as lack of awareness, societal stigma, and physical obstacles hinder their inclusion in decision-making processes.

R1(M): "No, there's often a lack of awareness and infrastructure to facilitate the participation of people with disabilities in community activities." **Garowe**

R6(M): "Girls with disabilities are not allowed in the training Area... They do not participate in matters other than relevant ones," **Burtinle**

R4(F): "Deliberately target women and girls with disabilities in education. They are given less priority to attend schools, and unsurprisingly therefore, generally achieve lower education results. It is important to work with the parents on this," **Hasbahale, Dangorayo**

Efforts to address traditional gender roles perpetuating harmful stereotypes are acknowledged, especially concerning women and girls with disabilities. However, concerns remain regarding healthcare accessibility for mothers and children, with disparities in service availability and capacity across different districts.
R5M: "There are dietary restrictions for men or/and women, girls, boys or children under 5... Because this is remote area. We can't get dietary foods," **Budun Buto, Dangorayo**

R6M: "There are dietary restrictions for men or/and women, girls, boys or children under 5... Because we don't have an idea what is a dietary food," **Budun Buto, Dangorayo**

Discrimination based on socio-economic status, clan affiliation, and ethnicity exacerbates exclusion, alongside conflict, political instability, and clan divisions. Equal access to education is seen as crucial for promoting social inclusion, along with community dialogue, awareness campaigns, and youth engagement initiatives.

Note taker: "All responders said that historically, marginalized or excluded groups in this community/district have included ethnic minorities such as the gabooye and other minorities people, Additionally, women and girls have often faced marginalization and exclusion from certain opportunities and decision-making processes in Somalia, Persons with disabilities may also face challenges in accessing services and participating fully in society." GESI FGD, Garowe Suggestions for enhanced inclusion include expanding access to education, providing safe spaces for dialogue, raising awareness about social inclusion, and involving PWDs in project planning. Women's inclusion in dispute resolutions and issue-based conversations is also highlighted as a step towards fostering inclusivity in Somalia.

R5M: "There are dietary restrictions for men or/and women, girls, boys or children under 5... Because this is remote area. We can't get dietary foods," **Budun Buto, Dangorayo R6M:** "There are dietary restrictions for men or/and women, girls, boys or children under 5... Because we don't have an idea what is a dietary food," **Budun Buto, Dangorayo**

Discrimination based on socio-economic status, clan affiliation, and ethnicity exacerbates exclusion, alongside conflict, political instability, and clan divisions. Equal access to education is seen as crucial for promoting social inclusion, along with community dialogue, awareness campaigns, and youth engagement initiatives.

Note taker: "All responders said that historically, marginalized or excluded groups in this community/district have included ethnic minorities such as the gabooye and other minorities people, Additionally, women and girls have often faced marginalization and exclusion from certain opportunities and decision-making processes in Somalia, Persons with disabilities may also face challenges in accessing services and participating fully in society." GESI FGD, Garowe Suggestions for enhanced inclusion include expanding access to education, providing safe spaces for dialogue, raising awareness about social inclusion, and involving PWDs in project planning. Women's inclusion in dispute resolutions and issue-based conversations is also highlighted as a step towards fostering inclusivity in Somali society.

3.6.3.7 Actors

There was a consensus among participants across the districts on the importance of multisectoral collaboration and concerted efforts from various stakeholders, including government bodies, NGOs, community leaders, and religious institutions, to address (GESI) challenges effectively. There is recognition of the role of organizations like Oxfam GB and women's rights groups in advocating for women's participation in decision-making processes and challenging inequalities through transformative leadership. Participants emphasized multi-sectoral collaboration, involving community members, political leaders, religious leaders, and household elders to addressing GESI issues.

R1(F): "Oxfam GB has, for many years, sought to ensure that women's right to equal participation in the design and delivery of programmers is respected, so that they have greater influence over decisions affecting their lives," **Hasbahale, Dangorayo**

Participants in Burtinle particularly indicated that their village administrations, government institutions, especially the governor, are key actors responsible for addressing GESI challenges. They also emphasized the importance of involving education, health, and nutrition experts within their communities, suggesting a collective effort to promote social inclusion and unity within the community. Respondents from Eyl and Garowe added to the list of current and potential GESI actors local and international non-government organizations (NGOs), community based organizations (CBOs), and local businesses and media, noting the need to prioritize inclusion in policies, practices, and advocacy.

KII (F): "Efforts to promote social inclusion and unity within the community involve a range of initiatives led by various actors, including government institutions, non-governmental organizations (NGOs), community-based organizations (CBOs), religious leaders, and international agencies." **Burtinle**

3.6.3.8 Access, Control, and Decision Making

The baseline data shows that access to resources and opportunities in the studied communities is shaped by traditional gender roles and freedom of movement. This section looks at how marginalized groups, particularly women, fare in terms of accessing resources, participating in decision-making at home and in the community, and the existing factors that influence these dynamics.

3.6.3.9 Gender Roles

The findings reveal that men are typically engaged in outdoor activities such as tending to the livestock and decision-making while women handle domestic chores and childcare. However, there are instances where women play leadership roles or engage in activities traditionally associated with men. Women often have some influence over family decisions concerning children, particularly on education and healthcare. Additionally, food production, which is traditionally a male domain, sees increasing involvement from women, who farm for household consumption and contribute to financial decisions. Despite these exceptions, societal expectations and cultural beliefs often dictate the division of labor along gender lines.





KII (F): "Gender roles are well-defined within Somali households, with distinct responsibilities assigned to men and women. While men are generally expected to provide for the family financially and make decisions regarding external matters, women often oversee domestic tasks such as cooking, childcare, and household management." **Burtinle**

Moreover, changing perceptions are emerging, with women increasingly entering the

workforce and acquiring assets to support their families. Health, nutrition, and sanitation initiatives are often led by women, supported by civil society groups. Efforts to address gender equality and social inclusion must navigate these complex cultural and religious norms to promote more equitable outcomes for all.

KII1(M): "It is essential to recognize that women play significant roles in decision-making related to health and nutrition, especially within their immediate spheres of influence. Somali women have traditionally been responsible for managing the household, including food preparation, childcare, and caregiving. As such, they often have practical knowledge about the nutritional needs of their family members and can influence dietary choices and meal planning." **Eyl**

3.6.3.10Decision-Making

Similar to gender roles, the findings related to power dynamics within the studied communities reveal entrenched cultural beliefs that favor men across various contexts. There is a notable underrepresentation of women in economic and governmental decision-making roles, reflecting broader gender disparities in leadership positions. The respondents unanimously indicated traditional gender divisions in household responsibilities, with women primarily managing meals and caregiving tasks. Men are consistently depicted as decision-makers in family matters. Despite some acknowledgment of women in leadership roles, there is a prevailing sentiment that men should hold power, citing tradition as justification. The perception of men as the primary decision-makers is further reinforced by the idea that men who engage in traditionally female tasks are weak. However, there are instances where decision-making follows the egalitarian approach where both men and women contribute to the process, particularly in financial matters at household level.

KII(F): "Men are responsible for major things. That's is the way of our culture and religion. The head of the household is usually the father or the eldest male and is considered the primary decision-maker. He is responsible for making important decisions related to family matters, including financial decisions, education, marriage arrangements, and major life choices. This is also because of the distribution of financial resources and religious beliefs," **Garowe**

The pervasive belief that men ultimately hold the final say in important matters at household level and in the community is attributed to cultural and religious beliefs as well

as structural factors such as the institution of clan elders that prioritize male leadership and control over resources. The decision-making process regarding women's healthcare, including health facility visits and complementary feeding, is largely also determined by husbands, further illustrating the unequal decision-making power. These findings highlight the need to address gender norms and promote more equitable decision-making structures that empower women to participate in shaping their own lives and communities. Efforts to promote gender equality should aim to empower women in leadership roles and foster inclusive decision-making practices that value the contributions of all.



Figure 1.8: Who between men and women make decisions at community level?

3.6.3.11Economic opportunities

Access to resources, opportunities, and services remains a critical issue in Somalia, particularly concerning gender equality and social inclusion (GESI). While there is recognition of equal rights among community members, systemic barriers persist, hindering the full participation of women, youth, persons with disabilities (PWDs), and marginalized groups.

Figure 1.9: Who between men and women have more access to resources and opportunities?



KII2(Garowe): "Access to Resources: In this community/district, gender roles often restrict women's access to resources such as education, healthcare, land, and employment opportunities. Women may face barriers to education due to cultural beliefs that prioritize boys' education or limit girls' schooling." *Garowe*

Education stands out as a key area where disparities exist despite widespread acknowledgment of the importance of educating girls. Cultural and religious beliefs often prioritize boys' education, limiting girls' access to schooling (Ali & Noah, 2022).

Additionally, pregnant and lactating adolescents face obstacles, such as discrimination, in returning to school, perpetuating gender-based educational disparities.

R1(M): "No. Pregnant and lactating adolescents should not be allowed back in school... In here we don't have adolescence education..." **Budun Buto, Dangorayo**

In terms of asset ownership and economic access, men generally hold an advantage over women, especially concerning household ownership and decision-making. While some women own livestock, houses, and land, disparities persist, with women often underrepresented in decision-making roles in economic institutions.

R3(F): "Because of women's historic lack of presence in formal government and the structural barriers they face in entering the political sphere, many women have sought leadership positions within civil-society organizations," **Hasbahale, Dangorayo**

Civil society groups play a crucial role in providing alternative avenues for women's leadership, addressing historic gaps in representation within formal government structures. However, access to resources and opportunities remains limited for women with disabilities, who face barriers to education and participation in community activities.

R6M: "Girls with disabilities are not allowed in the training Area... They do not participate in matters affecting the community, other than relevant ones... Wells exist, yet they (girls) are prohibited from pumping water" **Burtinle**

Limited access to food and nutrition, particularly in remote areas, impacts both men and women, with children, especially those under five, facing dietary restrictions due to some of their parents' lack of knowledge about nutritional needs. Access to health and nutrition facilities is also hindered by factors such as geographic location, distance to facilities, infrastructure development, political stability, and security, which disproportionately affects women, girls, and persons with disabilities.

KII (**F**): "The accessibility of healthcare services in the community of this district can vary significantly based on factors such as geographic location, urbanization level, infrastructure development, and political stability." **Burtinle**

3.6.3.12Mobility

The study participants generally reported that there are no specific places in their communities where women, girls, and individuals with disabilities are prohibited from going, indicating a fairly open mobility situation for all genders and individuals with disabilities within their communities.

R3(F): "No – There are no places in the community where women, girls and the disabled are prohibited from going to," **Hasbahale, Dangorayo**

3.6.3.13Systems

Religious and cultural beliefs in these communities reinforce traditional gender roles, giving men greater access to decision-making and economic opportunities. This section highlights how cultural and religious beliefs shape gender equality and social inclusion (GESI).

3.6.3.14 Religion and culture

Religious and cultural beliefs play a pivotal role in entrenching men's privileged access to decision-making and socio-economic opportunities, perpetuating gender disparities and social exclusion. Ironically, clan elders, community leaders, and religious figures, who are predominantly men, are said to be leading efforts toward gender equality and social inclusion (GESI), which indicates their recognition of equal rights within the communities but also their potential perpetuation of exclusion. Inadequate representation of women in leadership roles at various levels, particularly in government, further promotes exclusion and perpetuates systemic barriers to gender equality.

R5(F): "There are a lot of challenges regarding gender equality, including unequal access to education, work, and decision making among others. Men in this community believe they can do everything. They don't give women any chances to participate in community engagements." **Dangorayo**

The restrictive nature of religious beliefs hinders social interaction between boys and girls, limiting their ability to benefit from community activities that require collaboration. Socially constructed gender roles, influenced by both culture and religion, impose barriers to women's access to education, healthcare, land ownership, and employment opportunities. This is compounded by the stigma faced by teen mothers attempting to return to school, as they risk discrimination and may be older than their peers, highlighting the intersecting challenges faced by women and girls.

R3(M):"We are Islamic people, and our sharia does not allow us to mix men and women... Religion does not allow us to always work together... Shyness and powerlessness of women." **GESI FGD, Burtinle**

However, there are glimpses of progress, as legal frameworks allow for land inheritance by women, albeit within a broader context of entrenched gender norms. Additionally, the emergence of digital systems, including mobile phones and e-banking solutions, offers a discreet opportunity for women to engage in financial transactions and own assets without attracting undue attention.

3.6.3.15 Well-being

This section of the report highlights critical issues related to health, nutrition, and genderbased violence (GBV) in the studied communities. Participants expressed a strong need for improved health and nutrition services, particularly for girls. Concerns about sexual abuse at home and limited access to education for girls point towards the complex challenges faced by women and girls. The report also reveals the prevalence of GBV, with varying levels of reporting due to factors like community size, stigma, and access to support services. While some communities acknowledge GBV, others deny its existence, suggesting underreporting. There's a lack of dedicated facilities for GBV survivors across all districts. The section also emphasizes the importance of "Do No Harm" principles in child safety. Dangorayo emerged as a particularly vulnerable area with a lack of child safety programs and infrastructure. Participants stressed the need for government intervention, creation of child protection systems, and collaboration with NGOs like World Vision to address these gaps.

3.6.3.16Gender-based violence

The participants generally expressed a need for improved health and nutrition services, particularly for vulnerable groups such as girls of school-going age. There was a recognition of the importance of education for girls, highlighting the need for ensuring their access to schooling. Additionally, concerns about sexual abuse at home were raised, indicating a need for support and interventions to address this issue.

Figure 1.9: Are you likely to report sexual violence at home or at work?



R1(F): "If they (girls) don't get any threat and they can speak freely (about sexual abuse at home), because often they feel shame and there's community stigma," **Hasbahale, Dangorayo**

Specifically, participants in Budun Buto emphasized the need for upgrading the Primary Health Unit (PHU) to a health center (HC) to provide more comprehensive health and nutrition services. They also expressed a need for vaccination and nutrition services, indicating a

desire for improved access to essential healthcare and nutrition support in their community.

R5M: "My recommendation is that we need to upgrade our PHU to a health-center (HC). I also think the World Vision team should bring back vaccination services... if we can get more health and nutrition services," **Budun Buto, Dangorayo**

As indicated in various parts of this analysis, these findings reveal the existence of genderbased violence (GBV) in the studied communities, with varying prevalences, influenced by factors such as community size, social cohesion, reporting mechanisms, and access to support services. Addressing GBV effectively in the four districts requires targeted interventions, considering the unique socio-cultural contexts and challenges. In Dangorayo, there is recognition of increasing incidents of rape and violence against women. However, there is also a prevailing sense of shame and stigma surrounding GBV, which often prevents victims from reporting or speaking out about their experiences, whether they occur at home or in the workplace. While some respondents acknowledge the occurrence of GBV, particularly physical violence, others claim to have no knowledge of such cases or believe them to be rare. There is also mention of GBV occurring in hostels and camps, indicating that it is not limited to specific environments within the community.



Figure 1.10: Are there cases of GBV in

your community?

R4(F): "GBV cases... it happens but we can't share any one sexual violence... Generally, I know that rape of women is increasing," **Hasbahale, Dangorayo**

All respondents interviewed in Budun Buto, unanimously claimed that there are no GBV cases in their small village due to the close-knit nature of the community, where individuals know each other by name. This suggests a lack of reported or recognized cases rather than an absence of GBV.

R6M: "There is no GBV cases in budunbuto, becouse its very small village, and they know each other by names," **Budun Buto, Dangorayo**

Participants in Burtinle expressed diverse opinions on the existence of gender based violence in the district. Some of them denied its existence while others acknowledged partner violence in their households and neighborhood. Despite this acknowledgment of GBV, respondents indicated a lack of facilities offering post-GBV-related services, highlighting gaps in support for survivors.

Note taker: "All the six respondents said they have not seen any facilities offering post GBV related services in the district," **GESI FGD, Burtinle**

Reporting of gender-based violence (GBV) is influenced by factors such as community attitudes, available support services, and perceived stigma. Survivors face shame and stigma in reporting GBV. Available support services include the judiciary, community elders, and self-defense mechanisms. Some community members seek help on social media. In Garowe, respondents expressed belief it is likely for women to report sexual abuse, both at home and in the workplace, indicating a greater sense of trust in the community's response to GBV incidents. However, there is an absence of facilities offering post-GBV services, highlighting the gap in support for survivors.

Figure 1.11: What can you say about availability of GBV facilities and services in your area?



R3(F): "We don't have a facility in our community... we punish perpetrators of GBV and offer survivors medication, awareness, and support through family members to avoid loneliness... GBV also occurs in hostels and comps... We offer all needs of patients, home iustice. and treatment. counselling programs," Hasbahale, Dangorayo.

There were suggestions that girls are unlikely to report sexual abuse due to its perceived absence in the

community, while others believe reporting is possible, especially with support from individuals who protect women from abuse. However, there are also concerns raised about shyness and the perceived impossibility for women to report problems, indicating potential barriers to accessing support.

R1(M): "Girls are not likely to report sexual abuse because it does not happen in this community", **GESI FGD, Burtinle.**

1.1.1.1 DO NO HARM

The studied communities' Conflict-DO NO HARM scenario demonstrates a varied state of awareness and activity in relation to child safety and conflict resolution mechanisms. Dangorayo's neighborhood is vulnerable, evidenced by the recognition of the lack of child safety programs and infrastructure among the study participants. In order to close these gaps, respondents underlined the necessity of government action and the creation of child protection systems. They also suggested possible partnerships with groups like World Vision although efforts to address conflict and promote child well-being require collaborative action involving government agencies, community leaders, and nongovernmental organizations to ensure comprehensive child protection.

GESI FGD Notes: Participants mentioned child nutrition, child sanitation, breast-feeding, and knowledge of parenting and child development and social and emotional competence of children as the structures that support in addressing child protection." **Burtinle**

3.6.3.17 Legal and policy issues affecting gender equality in the studied areas

Weak legal framework: The lack of robust legislation on gender equality is affecting the studied communities. There are limited laws prohibiting discriminatory behaviors and explicitly encouraging gender equality. There is a draft National Gender Policy, but there are obstacles in the way of its implementation.

Limited enforcement: It can be challenging to enforce laws, even when they are present. Customary law frequently supersedes the legal system, which can be discriminatory against women in areas like inheritance and violence.

Women's underrepresentation: The representation of women in governmental and decision-making bodies is quite low. This implies that when it comes to creating policies that impact them, their opinions are hardly heard.

Access to justice: Many women, particularly those living in rural areas, have restricted access to justice. have limited access to legal aid and support systems. This makes it difficult for them to seek recourse if they experience discrimination or violence.²⁰

3.6.4 GESI conclusion

The study findings reveal that deep-rooted traditional views of gender roles in Somalia persist today, reinforcing gender stereotypes and contributing to the social exclusion of women, particularly those with disabilities. Social norms and religious beliefs perpetuate patterns of gender discrimination, limiting girls to certain fields of education, political roles, and access to economic resources. Despite some recognition of the importance of gender equality and equal access to basic rights, there is a pervasive lack of awareness and knowledge among community members regarding GESI issues, including gender-based violence (GBV).

The study also highlights several challenges that hinder the advancement of GESI in maternal and child health and nutrition. These include inadequate infrastructure, insufficient funding, and the limited capacity of local health facilities to provide GESI-responsive services. Furthermore, the participation of women and marginalized groups in decision-making processes remains low, and there is a significant need for more gender-sensitive governance structures.

Effective management of gender injustice and the establishment of social normalcy require multi-faceted collaborations among government agencies, non-governmental organizations, community leaders, and religious institutions. These collaborations are indispensable in addressing the complexities of GESI issues. Enhancing local capacity through training and resources, improving access to health services, and creating economic empowerment opportunities are critical steps toward achieving gender equality and social inclusion.

The findings underscore the need for comprehensive and sustained efforts to raise awareness, build local capacities, and enhance participation. By leveraging the collective

²⁰] Women's Rights in the New Somalia: Best Practice Guidelines for MPs and CSOs [Report by Intergovernmental Authority on Development (IGAD

efforts of various stakeholders, including project donors, the NGO community, and the local government, it is possible to create a more inclusive and equitable society where women, including those with disabilities, can access the resources and opportunities they need to thrive. The study advocates for a holistic approach that integrates GESI principles into all aspects of maternal and child health and nutrition programs, ensuring that the benefits of these initiatives reach the most vulnerable populations.

3.6.5 **GESI Recommendations**

Table provides a structured overview of recommendations to promote gender equality, social inclusion, and effective management of gender-based violence in maternal and child health and nutrition in Burtinle, Dangorayo, Eyl, and Garowe.

Theme	Recommendations
Perceptions	- Launch community sensitization campaigns to address GBV and promote
	gender equality.
	- Engage religious and traditional leaders to promote positive narratives
	around gender equality and maternal/child health.
Awareness	- Develop educational programs targeting both men and women, focusing on
	GBV, gender equality, and maternal/child health.
	- Conduct workshops for community health workers to enhance their
	understanding of GESI and GBV.
Local	- Provide training and resources to local health facilities for GESI-responsive
Capacity	and GBV-sensitive services.
	- Support local NGOs with training and funding for GESI-focused health and
	nutrition programs.
Challenges	- Advocate for increased funding and resources for GESI and GBV initiatives in
	maternal and child health.
	- Improve infrastructure to ensure better access to health facilities and provide
	safe spaces for GBV victims.
Participation	- Involve women and marginalized groups in planning and implementing health
	and nutrition programs.
	- Establish women's health committees to provide a platform for women's
	voices in decision-making.
Actors	- Facilitate collaboration between government agencies, NGOs, community
	leaders, and religious institutions.
	- Clearly define roles and responsibilities of various actors to avoid duplication
	of efforts
Access	- Implement mobile health clinics to reach remote and underserved areas.
	- Advocate for subsidized or free health services for women and marginalized
	groups, especially GBV victims.
Control	- Implement economic empowerment programs to enhance women's financial
	independence.
	- Provide comprehensive health education targeting all community members to

Table 3: GESI recommendations

	empower women to make informed health and nutrition decisions and seek help if they are GBV victims.
Decision	- Establish gender-sensitive decision-making structures in health programs.
making	- Offer leadership training programs for women to increase their
in an ing	representation in health and nutrition governance
Gender-	- Support local organizations offering confidential support counseling and
Based	legal aid for GBV victims
Violonco	Also support the cascading of CPV support convisos to the community lovel
VIOlence	and their integration into existing health and nutrition programs.
	- Provide shelters or safe houses for GBV victims who feel unsafe at home.
	- Encourage and support GBV victims to report incidents to the police.
	- Enhance community support by connecting victims with trusted individuals
	and establishing peer-to-peer support networks.
	- Train healthcare workers, police, and community leaders on handling GBV
	cases sensitively and effectively.
DO NOT	- Partner with local governent to establish comprehensive child protection
HARM	systems in vulnerable neighborhoods.
	- Ensure these systems include reporting mechanisms, safe spaces, and
	rehabilitation programs.
	- Advocate for increased government funding and resources dedicated to child
	safety programs.
	- Develop and or follow-up implementation of policies that prioritize child
	safety and conflict resolution.
	- Foster partnerships with cited NGOs like Oxfam to leverage their expertise
	and resources.
	- Engage community leaders and local organizations in designing and
	implementing child protection initiatives.
	- Conduct awareness campaigns to educate communities about child safety and
	conflict resolution.
	- Provide training for community leaders, teachers, and parents on child
	protection and conflict mediation techniques.
	- Invest in the construction of child-friendly spaces such as playgrounds and
	community centers.
	- Ensure these spaces are safe and accessible to all children, including those
	with disabilities.
Legal and	- Invest in the construction of child-friendly spaces such as playgrounds,
policy Issues	schools, and community centers.
affecting	- Ensure these spaces are safe and accessible to all children, including those
GESI	with disabilities.
	- Train law enforcement officers and judicial personnel on gender-sensitive
	approaches.
	- Develop monitoring mechanisms to ensure the enforcement of gender
	equality laws and policies.
	- Implement affirmative action policies to increase the representation of

	women in governmental and decision-making bodies.							
	- Encourage political parties and organizations to support and mentor female							
	candidates.							
	- Establish and expand legal aid services, particularly in rural areas.							
	- Develop community-based support systems to assist women in seeking justice							
	and addressing discrimination or violence.							
	- Work with traditional and religious leaders to align customary practices with							
	national and international gender equality standards.							
	- Conduct community dialogues to raise awareness and challenge							
	discriminatory customs and practices.							
	- Launch public awareness campaigns to inform communities about gender							
	equality laws and women's rights.							
	- Provide education and training programs that empower women to understand							
	and assert their legal rights.							
Project	- Provide sustained funding for GESI and GBV initiatives.							
Donors	- Ensure robust monitoring and evaluation mechanisms.							
	- Support innovative solutions to overcome GESI and GBV challenges.							
Partner	- Facilitate platforms for sharing best practices and successful strategies for							
NGOs &	GESI and GBV.							
CBOs	- Foster partnerships among partners to leverage strengths and resources.							
Local	- Develop and enforce policies promoting GESI and addressing GBV in health							
Government	and nutrition.							
	- Provide training for government officials on GESI principles and their							
	application in health and nutrition programs.							
	- Actively engage communities in policy development and implementation.							

4 CONCLUSIONS

4.1 Child health and nutrition

Prevalence of wasting was 14.0% (10.6 - 18.4 95% C.I.) while severe wasting was 2.6% (1.6 - 4.1 95% C.I.) with stunting prevalence of 9.8% (6.1 – 15.6 95% C.I.) and severe stunting of 2.1% (0.9 – 4.8 95% C.I.). Wasting prevalence was notably higher among boys, while stunting prevalence showed no significant gender difference. Half of children 0-5 months were exclusively breastfed. Minimum dietary diversity was very low with only 14.3% of children 6-23 months feeding from 5 out of 8 food groups. A significant low proportion (10.2% overall, 10.1% boys, 10.3% girls) achieved their minimum acceptable diet.

While most of the caregivers were aware of appropriate infant and young child feeding practices, the implementation of these practices varied with some indicators. For example, awareness of exclusive breastfeeding was high, however, only half of the children were exclusively breastfed. Factors limiting breastfeeding include child illness, perception of inadequate breastmilk and mother getting another pregnancy.

" The challenges of breastfeeding comes when the mother or child is sick, the child who refuses to suckle me at the breast, the mother who becomes pregnant or a mothers' breast without milk" FGD with carer of children 0-23 months, Xaxaar, Burtinle district

A fitted binary logistics regression was conducted with wasting as the dependent variable and other factors perceived to be associated with wasting as shown in Table 33. While only child age significantly predicted malnutrition (P=0.041), the minimum dietary diversity (6-23 months), children from less household size and those who caregivers had received CHW counseling on complementary foods had reduced odds of being acutely malnourished.

whz	Coefficient	Odds ratio	Std. err.	z	P>z	[95% co interva	onf. I]
_cons	-0.902	0.405	1.730	- 0.520	0.602	- 4.292	2.488
sex_child	0.206	1.229	0.436	0.470	0.636	- 0.649	1.062
age_child	-0.092	0.912	0.045	- 2.040	0.041	- 0.181	- 0.004
Minimum meal frequency	0.023	1.023	0.468	0.050	0.961	۔ 0.895	0.941
Minimum dietary diversity	-0.438	0.645	1.136	- 0.390	0.700	- 2.665	1.788
age of carer	0.013	1.013	0.034	0.370	0.712	- 0.054	0.079
Household size	-0.078	0.925	0.129	- 0.600	0.547	- 0.330	0.175
Received CHW counseling on complementary foods	-0.791	0.453	0.454	- 1.740	0.081	- 1.682	0.099
Know complementary feeds should be introduced at 6 months	0.843	2.324	1.116	0.760	0.450	- 1.344	3.031

Table 33: Binary logistic regression for wasting

4.2 Maternal health

While the majority of women attended at least one ANC visit, only 36.2% met the recommended minimum of four visits meeting this criterion. Most ANC visits occurred in the first trimester, indicating early engagement with healthcare services. However, there

was a disparity in ANC attendance based on household head gender and respondent disability status. Key services received during ANC include blood pressure and body measurements, diet counseling, and tetanus toxoid provision, with over half of the mothers receiving tetanus vaccination during their last pregnancies. Health centers and home deliveries were common place of deliveries, with midwives being the primary birth attendants. Notably, untrained birth attendants supported a proportion of deliveries (5.6%), particularly among mothers with disabilities (17.6%). This emphasizes the importance of postnatal health checks, with a significant percentage of mothers receiving checks while still in health facilities after delivery, primarily conducted by nurses/midwives.

"I've noticed that postnatal care services are underutilized in our community. After childbirth, many women focus on caring for their newborns and may overlook their own health needs. We need better education and support to encourage women to seek postpartum care." FGD with women aged 15-49 years, Jilab MCH, Garowe District

4.3 Health access

Geographical accessibility to health services was optimal with more than half of the sampled respondents indicating reaching their nearby health facility in less than 15 minutes mainly on foot. However, it is crucial to acknowledge the challenges faced by respondents living with disabilities, in accessing healthcare facilities within a reasonable timeframe. The access for some specialized health services such as laboratory and referral (ambulance) are limited especially in low tiers health facilities.

"Laboratory services are essential for diagnosing and monitoring various health conditions, but unfortunately, our health facility lacks adequate laboratory facilities. Indeed, access to affordable transportation services for pregnant women in labor is a critical need that our health facility doesn't currently address" FGD with women aged 15-49 years, Jilab MCH, Garowe district

Community health workers (CHWs) turn out to be health champions as they fill the gaps between the formal healthcare and the communities. They dedicate their efforts to the mission of providing health education, promoting measures aimed at preventing diseases and directly reaching for the provision of essential services to the community thus contribute considerably to better health outcomes and a higher quality of life for individuals.

5 **RECOMMENDATIONS**

Based on the study results and analysis, the following are recommended.

Theme	Gaps	Recommendations	Level	Responsibility
Health financing	Low health budget allocation (<5%): Outcome indicator 1	Advocate for establishment of emergency health funds and rapid response mechanisms to quickly mobilize resources during crises.	Macro	WVI, H&N partners, FMOH
		Encourage public-private partnerships to fund health projects and infrastructure.	Meso	WVI, H&N partners, MoH
Child health and nutrition High prevalence of wasting (Categorized as serious in WHO classification): Outcome indicator 2	Strengthen MUAC screening at all health facility service points to reduce missed opportunities Community mobilization)	Meso	WVI, H&N partners, MoH	
	classification): Outcome indicator 2	Advocate to Nutrition partners to scaling-up I/CMAM coverage to >80% by active case finding and Mass screening including through community health workers	Meso	WVI, H&N partners, MoH
		Build the capacity of both Local staffs and Health Authority on Nutrition in Emergencies (NiE), this includes surveillance and response	Meso	WVI, H&N partners, FMOH
	Low prevalence of exclusive breastfeeding	Strengthen the community awareness interventions through training and engage peer counsellors, mother to mother support groups and community-support groups to provide counselling, and guidance to mothers in their own communities on Infant and Young Child Feeding including hygiene practices	Micro	WVI, H&N partners, MoH

Table 34: Recommendations

		Mainstream and prioritize the promotion and support of breast-feeding activities at community level	Meso/Micro	WVI, H&N partners, MoH
		Promote responsive feeding and feeding a sick child practice among primary caregivers	Micro	WVI, H&N partners, MoH
	Poor Complementary feeding	Strengthen Baby-Friendly Hospital Initiative, through more integration with nutrition program	Meso	WVI, H&N partners, MoH
		Ensure advocacy and behaviour change communication toward IYCF recommended practices	Meso	WVI, H&N partners, MoH
		Develop and implement cooking sessions among women to include balanced diet concept based on locally available and accepted foods for women and children to improve dietary diversity	Micro	WVI, H&N partners, MoH
Maternal and child health	Low rates of recommended 4 visits and over	Promote early ANC attendance targeting first trimester and increased visits	Micro	WVI, H&N partners, MoH
	Low IFAS consumption (69.2% an average of 2.77 months)	Nutrition education for women on benefits and adherence of IFAS	Micro	WVI, H&N partners, MoH
	High prevalence of home deliveries	Sensitize and educate women on need for facility delivery and to attend PNC within 48hrs of delivery	Micro	WVI, H&N partners, MoH
Hygiene and sanitation	Low prevalence of handwashing in critical times	Promote hand washing at 5 critical times and good hygiene practices at the community level	Meso, Micro	WVI, H&N partners, MoH
	A proportion of	Initiate and strengthen sectoral	Meso	WVI, H&N

househole	ls collaboration/lir	nkage between	partners,
practising	open nutrition and W	ASH through	МоН
defecatio	n regular coordina	ation meetings	

6 References

Food and Agriculture Organization of the United Nations. (2011). Guidelines for measuring household and individual dietary diversity.

- Khan, J., Vesel, L., Bahl, R., & Martines, J. C. (2015). Timing of breastfeeding initiation and exclusivity of breastfeeding during the first month of life: effects on neonatal mortality and morbidity—a systematic review and meta-analysis. *Maternal and child health journal*, 19(3), 468-479.
- Ministry of Health and Human Services; Federal Government of Somalia (2021). Somalia Health Sector Strategic Plan 2022–2026 (HSSP III)
- Shiferaw, S., Spigt, M., Godefrooij, M., Melkamu, Y., and Tekie, M. (2013). Why do women prefer home births in Ethiopia?. *BMC pregnancy and childbirth*, 13(1), 5.

Somalia Health cluster (2023). Somalia Health strategy 2023-2025

- Swindale, Anne, and Paula Bilinsky. 2006. Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide (v.2). Washington, D.C.: FHI 360/FANTA.
- Waswa, L. M., Jordan, I., Herrmann, J., Krawinkel, M. B. and Keding, G. B. (2015). Community-based educational intervention improved the diversity of complementary diets in western Kenya: results from a randomized controlled trial. *Public Health Nutrition*, 18 (18)3406-3419.
- World Health Organization. (2021). Indicators for assessing infant and young child feeding practices: Definitions and measurement methods

7 ANNEXES

7.1 Annex 1: Anthropometric Plausibility check

Overall data quality

Criteria	Flags* 1	Unit	Excel	. Good	Accept	Problematic	Score
Flagged data (% of out of range subje	Incl cts)	\$	0-2.5 0	>2.5-5.0 5	>5.0-7.9 10	5 >7.5 20	0 (0.5 %)
Overall Sex ratio (Significant chi square)	Incl	p	>0.1 0	>0.05 2	>0.001	<=0.001 10	0 (p=0.727)
Age ratio(6-29 vs 30-59) (Significant chi square)	Incl	p	>0.1 0	>0.05 2	>0.001	<=0.001 10	0 (p=0.966)
Dig pref score - weight	Incl	ŧ	0-7 0	8-12 2	13-20 4	> 20 10	0 (6)
Dig pref score - height	Incl	#	0-7 0	8-12 2	13-20 4	> 20 10	2 (8)
Dig pref score - MUAC	Incl	ŧ	0-7 0	8-12 2	13-20 4	> 20 10	0 (7)
Standard Dev WHZ	Excl	SD	<1.1 and	<1.15 and	<1.20 and	>=1.20 or	
	FXCI	50	>0.9 0	5	>0.80 10	20	0 (1.08)
Skewness WHZ	Excl	ŧ	<±0.2	<±0.4 1	<±0.6 3	>=±0.6 5	0 (0.15)
Kurtosis WHZ	Excl	ŧ	<±0.2	<±0.4 1	<±0.6 3	>=±0.6 5	0 (-0.02)
Poisson dist WHZ-2	Excl	p	>0.05 0	>0.01 1	>0.001 3	<=0.001 5	0 (p=0.158)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	2 %

The overall score of this survey is 2 %, this is excellent.

7.2 Annex 2: Sampling units

District	Catchment	Health Facility	population	HH	Status	Cluster
	area					Number
Burtinle	HarHar	Harhar HC 1	7800	1300	Rural	1
Burtinle	HarHar	Harhar HC 2	7800	1300	Rural	2
Burtinle	KalKal	KalKal HC	5400	900	Urban	3
Burtinle	Burtinle	Kulmiye HC	4368	728	Urban	4
Burtinle	Magacley	Magacley PHU	2460	410	Rural	5
Dangorayo	Budunbuto	Budunbuto PHU	1200	200	Rural	6
Eyl	Eyl	Badey HC 7	2400	400	Urban	7
Eyl	Eyl	Badey HC 8	2400	400	Urban	8
Eyl	Xasbahale	Xasbahale HC	2082	347	Rural	9
Eyl	Mareeya	Mareeya HC	774	129	Rural	10
Garowe	Garowe	Jawle HC 11	28800	4800	IDP	11
Garowe	Garowe	Jawle HC 12	28800	4800	IDP	12
Garowe	Garowe	Jawle HC 13	28800	4800	IDP	13
Garowe	Garowe	Jilaab MCH 14	21900	3650	IDP	14
Garowe	Garowe	Jilaab MCH 15	21900	3650	IDP	15

Garowe	Garowe	Waberi HC	5160	860	Urban	16
Garowe	Garowe	Barwaaqo HC	4350	725	Urban	17
Garowe	Sinujif	Sinujif HC	3768	628	Rural	18
Garowe	Birtadher	Birtadher PHU	3108	518	Rural	19
Garowe	Yombays	Yombays HC	2700	450	Urban	20

7.3 Annex 3: Household survey tool



7.4 Annex 4: Analysis of IYCF knowledge and skills indicator

Theme	Question	Required ²¹	Frequenc	Percent
			У	
Breastfeeding	What is the first food a	Only	361	90.3%
Promotion and	newborn baby should	breastmilk		
Support	receive?			
	When should a newborn	Within one	335	83.8%
	baby first be put to the	hour after		
	breast after birth?	birth		
	Have you heard about	Yes	320	80.0%
	exclusive breastfeeding?			
	What does exclusive	The infant gets	317	99.1%
	breastfeeding mean?	only breastmilk		
	Can you describe the	At least 2	314	78.5%
	benefits of exclusive			
	breastfeeding?			
Complementary	At what age should babies	At six months	374	93.5%
Feeding	start eating foods in			
Practices	addition to breastmilk?			
	Please tell me some ways to	At least 2	196	49.0%
	make rice porridge more			
	nutritious or better for			
	your baby's health.			
Maternal Health	Can you tell me what some	At least 2	169	42.2%
	good nutrition practices			
	pregnant women are			
	should use (during			
	pregnancy)?			
	Do you know the two types	Yes	293	73.3%
	of supplements, or tablets,			

²¹ If condition is met; this was coded 1, if not 0

	most women would benefit			
	from during pregnancy.			
	Please can you tell me why	At least 1	314	78.5%
	it is recommended that a			
	woman waits at least two			
	or three years between			
	pregnancies, that is before			
	coming pregnant once			
	again.?			
Nutrition	How can you recognize that	At least 2	282	70.5%
	someone is not having			
	enough food?			
	What are the reasons why	At least 2	261	65.2%
	people are			
	undernourished?			
	What are the reasons why	At least 2	176	44.0%
	people do not get enough			
	food?			
Hygiene	Probe whether respondent	Washes hands	333	83.3%
	uses soap or ashes	with Water		
		and soap/ashes		
	Handwashing in 5 critical	(before	243	60.8%
	times	cooking, before		
		eating, before		
		feeding a child,		
		after toilet,		
		After cleaning		
		babies bottom)		