



TOMAK Component 1 Midline Evaluation

Summary Brief | March 2021

Acronyms

CA	Conservation agriculture
CSA	Climate smart agriculture
CRS	Catholic Relief Services
DFAT	Australian Department of Foreign Affairs and Trade
DGLV	Dark green leafy vegetables
FCS	Food Consumption Score
FGD	Focus group discussion
FIES	Food Insecurity Experience Scale
HHDM	Household decision-making
KEQ	Key evaluation question
MAD	Minimum Acceptable Diet
MAF	Timor-Leste Ministry of Agriculture and Fisheries
MDD-C	Minimum Dietary Diversity for Children
MDD-W	Minimum Dietary Diversity for Women
MMF	Minimum Meal Frequency
MoH	Timor-Leste Ministry of Health
NGO	Non-governmental organisation
TOMAK	<i>To'os Ba Moris Di'ak</i> (Farming for Prosperity) Program
SBC	Social and behaviour change
S&L	Savings and loans
WG-SS	Washington Group Short Set
WRA	Women of reproductive age

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1. Background

1.1. About TOMAK

The *To'os Ba Moris Di'ak* (Farming for Prosperity) Program (TOMAK) is a five (plus five) year agricultural livelihoods program funded by the Australian Government in Timor-Leste. Its goal is to ensure rural households live more prosperous and sustainable lives. TOMAK will achieve this through parallel and linked interventions that aim to:

- Establish a foundation of food security and good nutrition for rural households (Component 1); and
- Build their capacity to confidently and ably engage in profitable agricultural markets (Component 2).

Component 1 (Food Security and Nutrition) has promoted nutrition-sensitive agriculture (NSA) approaches to improve the availability and utilisation of nutritious food. These activities have been implemented at the community level through lead NGO partners Catholic Relief Services (CRS), Mercy Corps and World Vision, each targeting different geographical areas within Baucau, Bobonaro and Viqueque municipalities. While there was some variation across partner approaches and training materials, approaches were aligned across three main community group types: farmer groups, nutrition groups, and savings and loans (S&L) groups. Nutrition content was layered on early into the establishment of farmer groups and into S&L groups later on into the establishment process.

1.2. About the midline study

As the program neared the end of its first phase (2016-2021), TOMAK was required to conduct a midline study. This midline aimed to gather data that can help the Australian Department of Foreign Affairs and Trade (DFAT) and TOMAK assess program performance, particularly in relation to the intermediate and end of program outcome (EOPO) levels of TOMAK's Theory of Change. The baseline was carried out in October 2017 and the midline was carried out in October 2020.

The Component 1 EOPOs and their corresponding intermediate outcomes are as follows:

EOPO 1: Households have year-round access to sufficient and nutritious food

The intermediate outcomes under EOPO 1 are:

- 1.1: Households apply NSA knowledge and skills
- 1.2: Households use surplus income to purchase nutritious food

EOPO 2: Households consume more nutritious foods

The intermediate outcomes under EOPO 2 are:

- 2.1: Households adopt improved nutrition behaviours
- 2.2: Households adopt more gender equitable and inclusive decision-making behaviours

To assess progress towards the EOPOs, the midline evaluation sought to answer the two Component 1 key evaluation questions (KEQs):

KEQ1: *To what extent has TOMAK contributed to households having year-round access to sufficient and nutritious food?*

KEQ2: *To what extent has TOMAK contributed to household consumption of more nutritious food?*

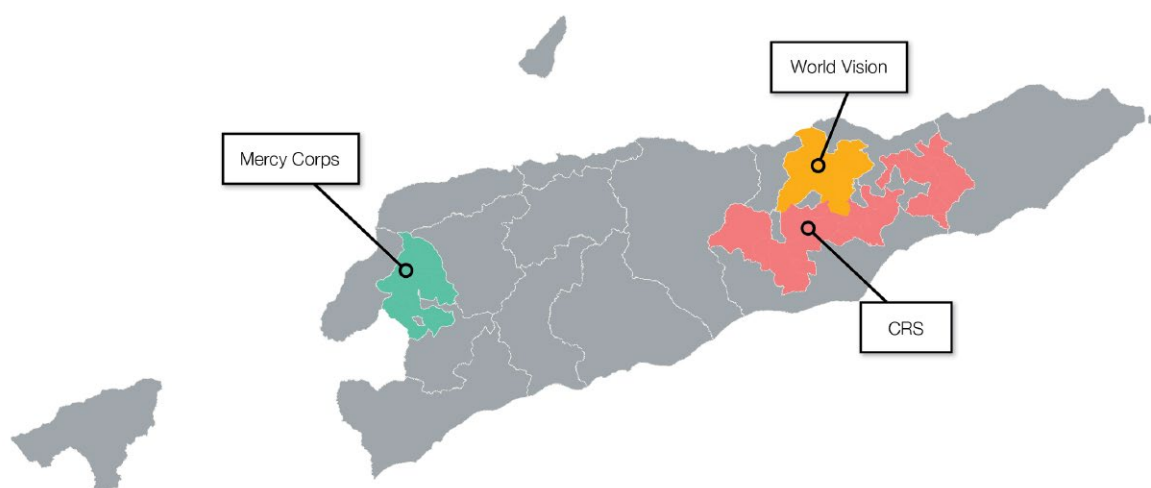
A major emphasis of the Component 1 midline evaluation was a large survey, which collected information on various TOMAK beneficiary groups, and compared these (where such data were available) with a baseline¹ and control group. The midline survey was complemented by focus group discussions (FGDs) designed to probe further on beneficiary perceptions, attitudes and behaviours related to the program's activities and expected outcomes.

1.3. Background of Lead NGO Partners

TOMAK's food security and nutrition activities have been implemented at the community level through selected Lead NGO Partners, each targeting different geographical areas or suku (villages) across three municipalities: Baucau, Bobonaro and Viqueque.

The partners commenced implementation of four-year activity workplans in mid-2017, incorporating a mix of NSA and social and behaviour change (SBC) activities tailored to the specific development needs and opportunities of different geographic locations, and reflecting their own experiences. These included a varying mix of activities, aimed at increasing production and consumption of nutritious foods (e.g. legume crops, moringa, orange fleshed sweet potato, fish, eggs), targeting the main nutrient deficiencies in Timor-Leste.

Figure 1: TOMAK Component 1 implementation areas and lead NGO partners



Approaches included the establishment of farmer groups, S&L groups, and community nutrition groups as a conduit for promoting improved nutrition practices.

An important feature of all three partner activities was to ensure deliberate integration, sequencing and layering. Interventions were designed to integrate approaches and promote practices across sectors and activities.

Partner community level interventions were complemented by TOMAK-led support to the Timor-Leste Ministry of Agriculture and Fisheries (MAF) and Ministry of Health (MoH) that focused on institutional strengthening of NSA and SBC approaches.

¹ The baseline data was collected in August and September 2017.

2. Methodology

2.1. Sample size parameters and characteristics

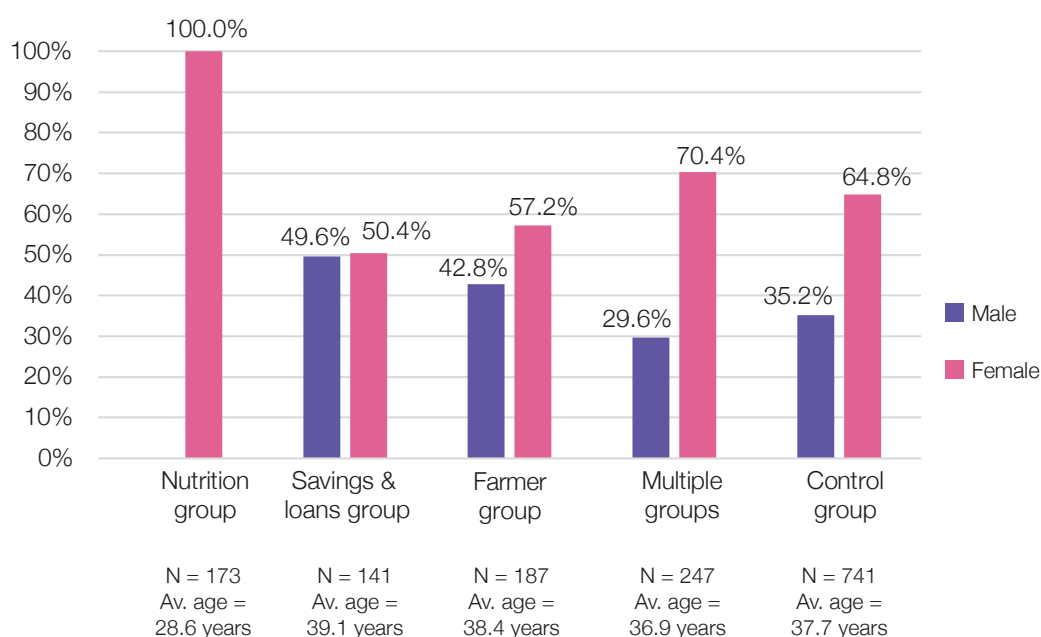
The midline followed the standard sampling parameters for unpaired data with a 95% confidence level and a 5% margin of error, equating to a sample size of ~384 for each outcome variable of interest (n=1,890). Given the resourcing constraints associated with a sample of this size, a reduced and more realistic sampling frame was decided upon (Table 1). There were 1,489 midline and control survey respondents in total. Respondents were part of a nutrition, S&L, farmer or control group. The sample criteria for women respondents required that only women of reproductive age (WRA) were interviewed across all groups and only WRA with a child aged 6-24 months were included in the nutrition group sample. When respondents participated in two or more types of groups, they were categorised under “multiple groups”.

Table 1: Sample size

Respondent type	Farmer group	S&L group	Nutrition group	Control group	(Baseline)
Male	125	125		250	240
WRA	125	125		250	
WRA with child 6-23 months			240	240	240
Total	250	250	240	740	480

A more robust midline sample was sought as the baseline sample was designed for a confidence level of 90% and margin of error of 10%, meaning it was likely that the mean values reported in the baseline data fell somewhere within a 20 percent range, which was considered too weak for such an important study.

Chart 1: Demographics per group



The TOMAK program is very diverse in its programming activities. TOMAK's midline survey focused on its core programming areas and did not dilute its results by assessing small pilot activities. To ensure that change realistically occurred, only beneficiaries who had been exposed to core TOMAK programming (farmer groups, S&L groups, nutrition groups) for a minimum period of exposure (one year or more) were sampled.

2.2. Survey modules

This section provides an overview of the modules included in the baseline and midline survey. The midline survey tool was based, as far as possible, on the baseline survey tool, so that a comparative analysis could be performed. Nonetheless, the baseline had certain weaknesses, making a comparison between midline and baseline impossible for certain modules (Table 2).

Table 2: Survey modules and comparison potential

Module	Included in baseline	Included in midline	Comparison possible
Respondent and Household Demographics	X	X	X
WG-SS: Washington Group Disability		X	
Hygiene	X	X	X
Land	X	X	X
Income sources	X	X	X
Crop production, sales and storage	X	X	X
Livestock assets (animals)	X	X	X
Wealth and poverty index		X	
MDD-C: Minimum Dietary Diversity for Children	X	X	X
MMF: Minimum Meal Frequency for Children	X	X	X
MAD: Minimum Acceptable Diet Score	X	X	X
MDD-W: Minimum Dietary Diversity for Women	X	X	X
Nutrition knowledge		X	
FCS: Food Consumption Score	X	X	X
FIES: Food Insecurity Experience Scale		X	
Household Decision-Making	X	X	
Nutrition Attitudes		X	
Finance	X	X	

2.3. Focus group discussions

TOMAK carried out three types of FGDs in its target municipalities with the three implementing NGO partners (CRS, Mercy Corps and World Vision), organised by group type: S&L groups, farmer groups

and nutrition groups.² Participants were invited to attend the discussions by TOMAK program staff and participation was voluntary.

In total, 357 respondents were interviewed through 51 FGDs, 232 women and 125 men. A minimum of five people participated in each FGD.

Table 3: Numbers of focus groups and participants³

Partner		# of groups			# of participants		
		M	F	Total	M	F	Total
CRS	S&L	3	3	6	18	17	35
	Farmer	2	2	4	12	17	29
	Nutrition	1	3	4	5	22	27
Mercy Corps	S&L	4	4	8	26	31	57
	Farmer	4	6	10	24	36	60
	Nutrition	-	8	8	-	55	55
World Vision	Farmer	3	2	5	28	16	44
	Nutrition	2	4	6	12	38	50
Total		19	32	51	125	232	357

² Most members of S&L groups are active as farmers and have been trained on S&L practices, nutrition and growing food crops. Most of the farmer groups that engaged in FGDs (though not all) are also active in S&L activities and participated in training in all three areas. Some of the nutrition group members that participated in FGDs reported also being trained on production of healthy food (training which they likely encountered through their participation in non-nutrition groups) and others reported they were trained in bookkeeping and S&L techniques, however these respondents were limited.

³ Although an even number of FGDs per group type were planned for each NGO, challenges with scheduling and unavailability of community members at the time of data collection resulted in varied numbers of FGDs conducted between each partner.

3. Key findings

Overall, the Component 1 midline demonstrates that TOMAK has significantly influenced improvements across target households on access and consumption of nutritious foods, access to financial services and increased joint household decision-making on production and nutrition topics.

3.1. Income sources

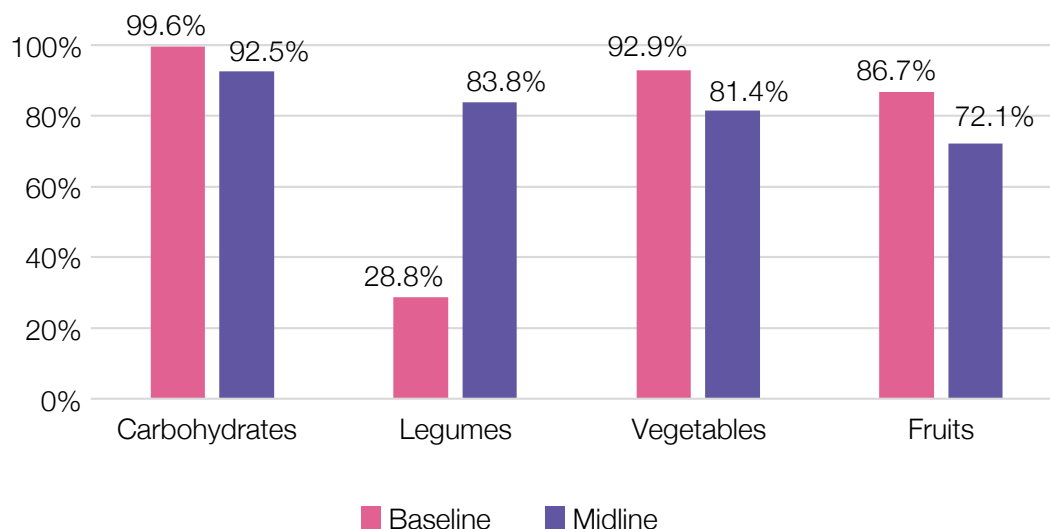
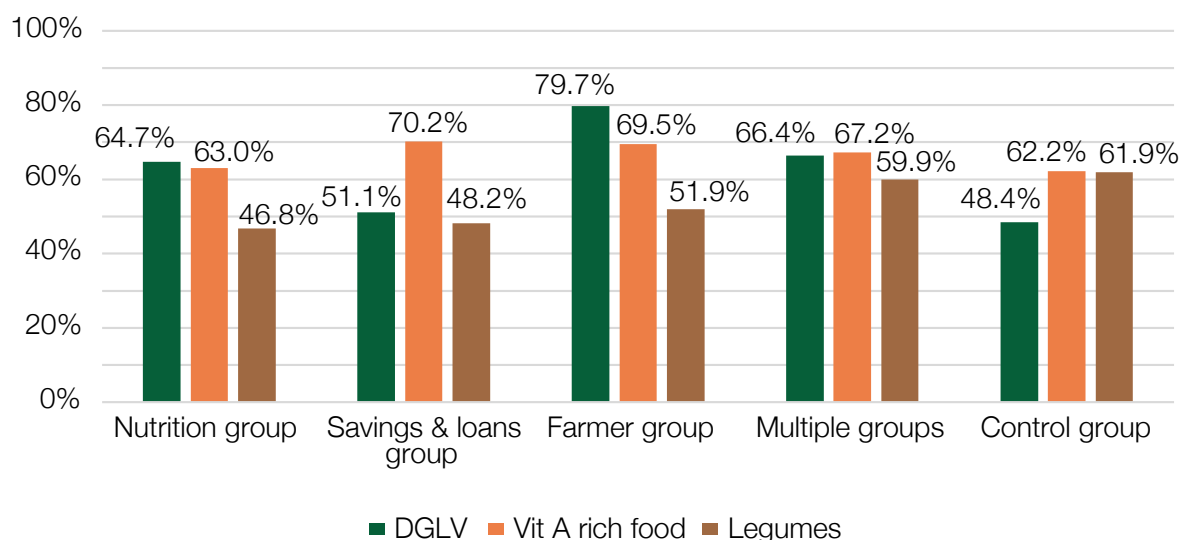
Midline respondents had a higher average number of income sources than the control group respondents. Most midline respondents received income from the sale of crops (64.8%) or livestock (63.9%) and these income sources accounted for almost 50% of midline respondents' biggest income sources. On average, households in the midline received income from 2.48 different income sources. Households that were part of multiple groups (e.g. an S&L group and a farmer group, or a farmer group and a nutrition group) had a significantly higher average number of income sources compared to respondents in the S&L group, the farmer group, and the control group.

3.2. Crop production

Households in the midline produced a significantly higher quantity and number of food groups compared to the control group. In addition, households from the farmer group produced significantly more crops per household compared to the S&L group, compared to respondents that participated in multiple groups, and compared to the control group. Respondents who were part of multiple groups produced significantly more crops per household compared to the control group.

Table 4: Average number of crops and food groups produced

Group type	Total # of crops produced	Total # of food groups produced
Farmer group	13.19	3.78
Nutrition group	11.10	3.53
Multiple groups	10.92	3.47
Savings & loans group	10.63	3.36
Total midline (exc. control)	11.47	3.54
Control group	9.41	3.34

Chart 2: Proportion of households that produced various types of crops**Chart 3: Distribution in production of dark green leafy vegetables (DGLV), Vitamin A rich foods, and legumes per group**

3.3. Crop sales

The average number of crops sold, and the average number of food groups sold, was significantly higher in the midline, compared to the control group. When comparing all groups, results show that households in the control group sold significantly fewer crops per household compared to the farmer group and compared to respondents that participated in multiple groups. In addition, the average number of food groups sold per household was significantly higher in the farmer group compared to the S&L group, compared to households that participated in multiple groups, and compared to the control group. There were more households in the baseline (compared to the midline) that sold carbohydrates, fruits and vegetables, while there were far more households in the midline (compared to the baseline) that sold legumes.

Table 5: Average no. of crops sold

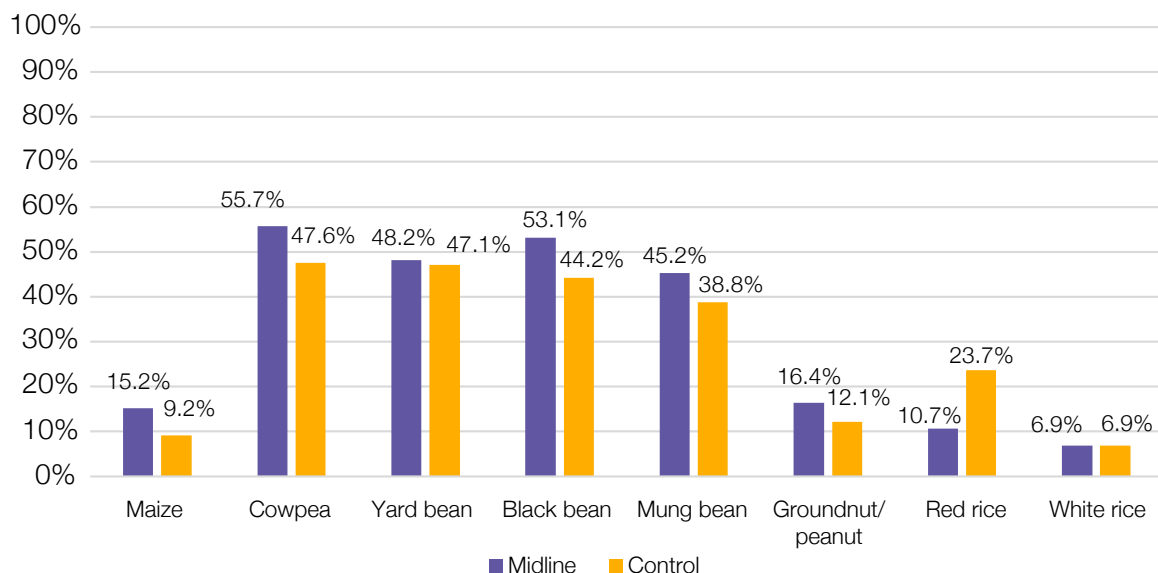
Group	Average # of crops sold
Farmer group	8.52
Multiple groups	7.48
Savings & loans group	6.80
Nutrition group	6.72
Total midline	7.50
Control group	6.05

Table 6: Average no. of food groups sold

Group	Average # of food groups sold
Farmer group	2.88
Nutrition group	2.71
Multiple groups	2.58
Savings & loans group	2.50
Total midline	2.69
Control group	2.51

3.4. Crop storage

Midline results show that white rice and red rice were stored for the longest period of time (at six months) compared to other crops. In terms of using improved storage methods, utilisation of the preferred method for maize was significantly higher in the midline than the control group, while utilisation of the preferred method for red rice was higher in the control group than the midline. There was no difference across midline and control for storage of other crops. The proportion of respondents storing maize, cowpea and red rice for the preferred duration was higher for midline respondents compared to the control group. For other crops, there was no significant difference.

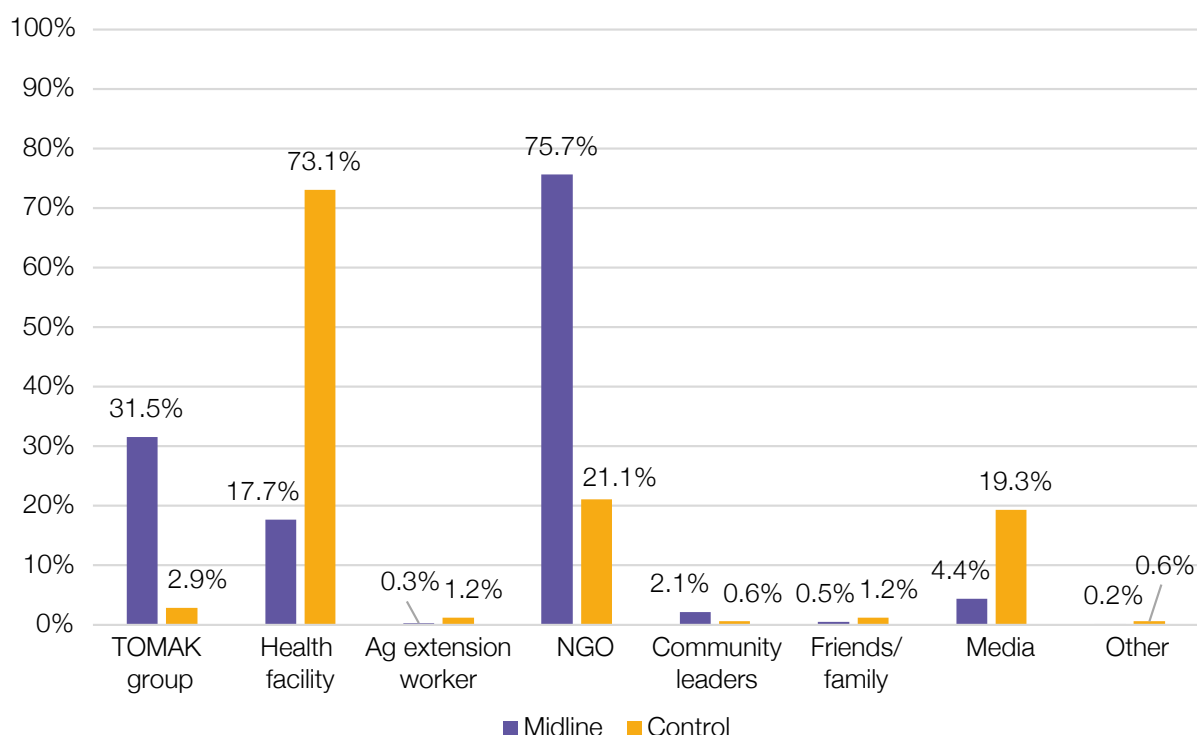
Chart 4: Use of preferred storage methods

3.5. Nutrition knowledge and attitudes

Calculations of dietary diversity scores in the midline survey were complemented with nutrition knowledge and attitude questions. Overall, more midline respondents gave correct answers to the knowledge and attitude questions than control group respondents. For example, significantly more midline respondents were familiar with the three food groups⁴ (75.1%) compared to respondents from the control group (19.7%). Results show that on average, respondents from the control group gave significantly fewer correct answers compared to all other group types. The nutrition group gave significantly more correct answers compared to the S&L group and the farmer group.

In terms of sources of nutrition information, there was a significant difference in the proportion of midline and control group respondents who received nutrition knowledge from either TOMAK groups, a health facility, an NGO, and from the media (Chart 5). More midline respondents (compared to control group respondents) received nutrition information from TOMAK groups⁵ and from an NGO⁶, and more control group respondents (compared to midline respondents) received information from a health facility⁷ and the media.⁸ It is likely that many midline respondents selected TOMAK group and NGO interchangeably, referring to the Lead NGO partner that facilitates the group. For the other sources of nutrition knowledge, there was no significant difference between midline and control group.

Chart 5: Sources of nutrition information



⁴ The Timor-Leste Ministry of Health uses a model of three food groups (carbohydrates, protein, and vitamins and minerals) as a simplified method of promoting dietary diversity. Numerous partners now reinforce this model in community-based nutrition promotion activities.

⁵ $\chi^2 (1, N = 743) = 57.36, p < .001$.

⁶ $\chi^2 (1, N = 743) = 168.88, p < .001$.

⁷ $\chi^2 (1, N = 743) = 191.19, p < .001$.

⁸ $\chi^2 (1, N = 743) = 40.76, p < .001$.

Table 7: Average number of correct answers per group

Group	Average # of correct answers
Nutrition group	6.22
Multiple groups	5.99
Farmer group	5.06
Savings & loans group	4.75
Total midline	5.58
Control group	4.04

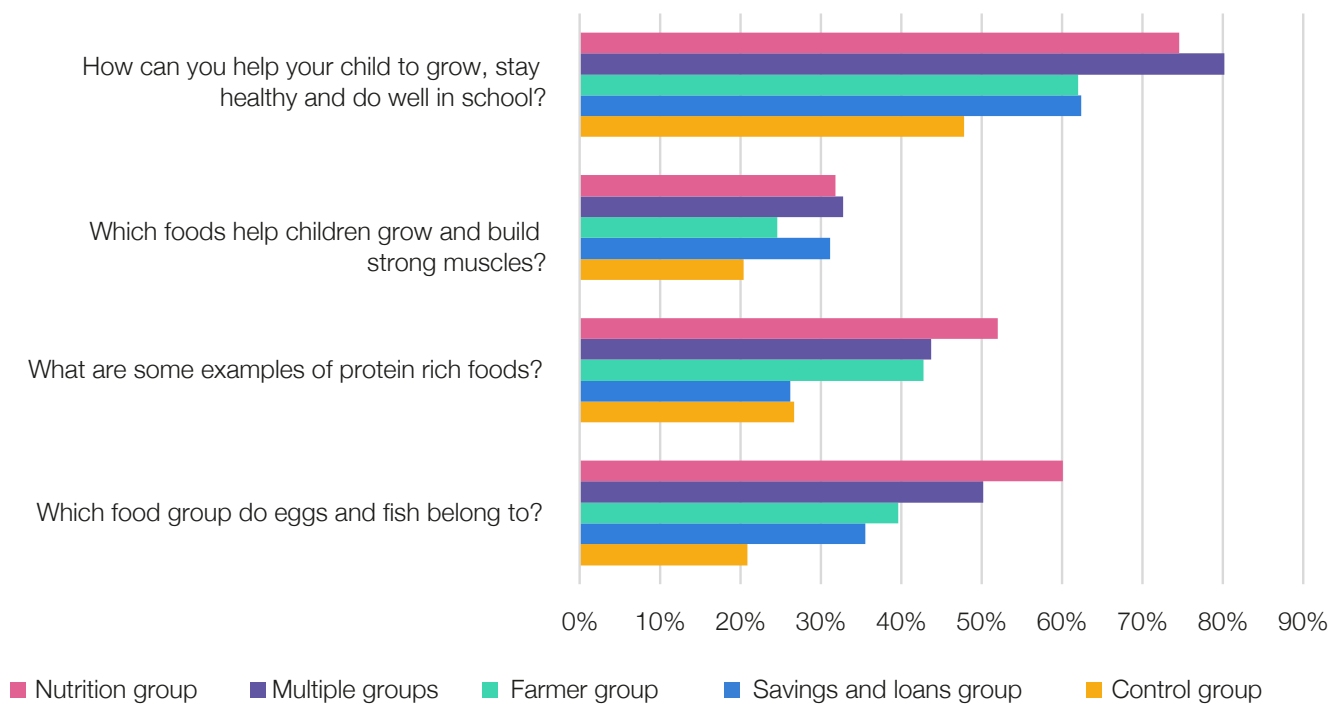
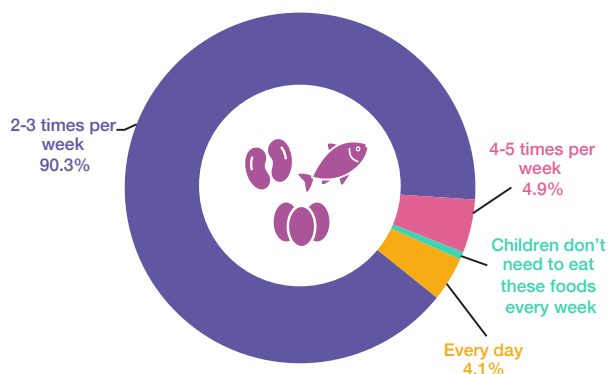
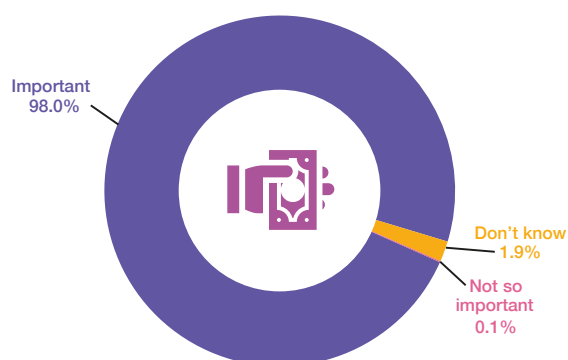
Chart 6: Proportion of correct responses to select nutrition questions, per group

Chart 7: Proportion of responses to select nutrition attitude questions

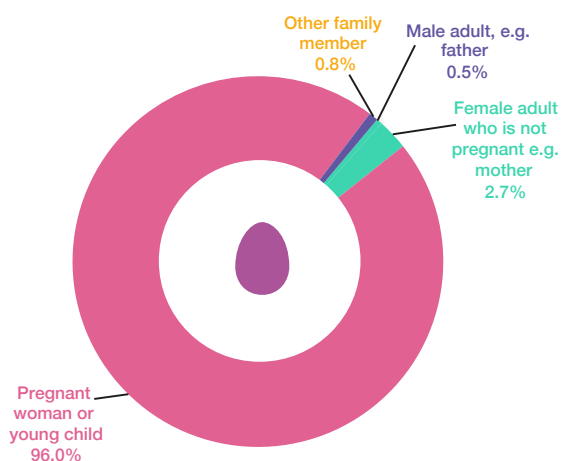
How often do you think young children should eat protein rich foods like eggs, beans, tofu or fish?



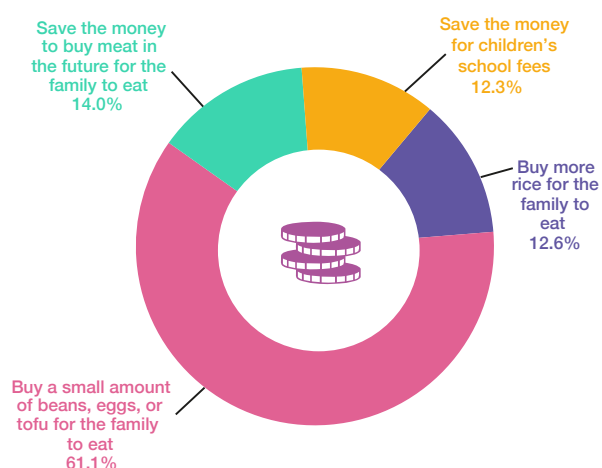
How important do you think it is for fathers to purchase protein rich food such as eggs, beans, fish and tofu for their children?



If there is only one egg available, which family member should get to eat it?

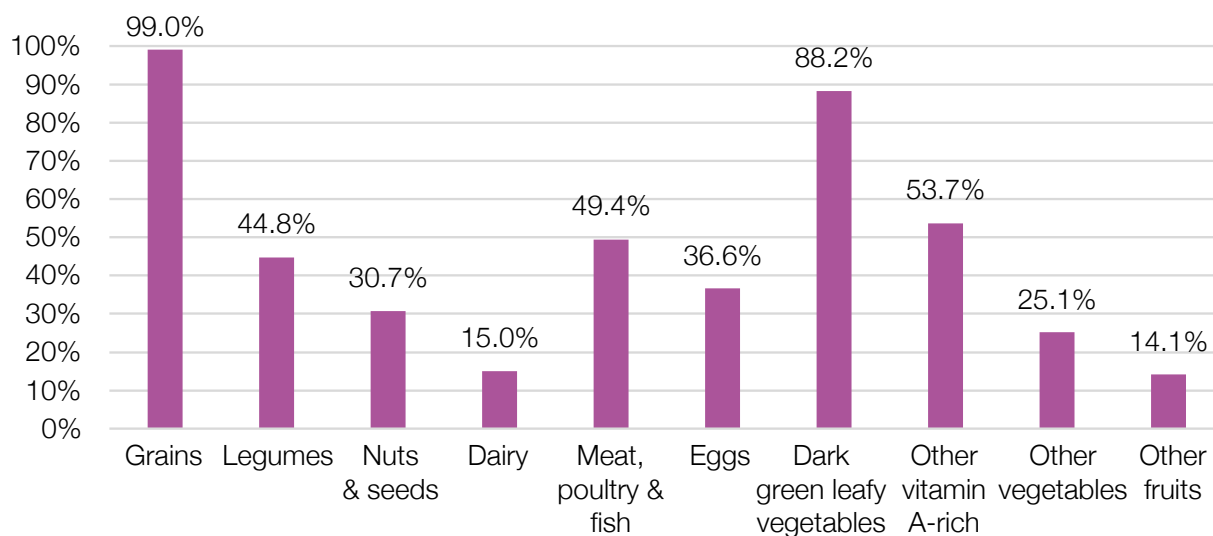


If you had \$2 spare, would you prefer to [...]



3.6. Minimum Dietary Diversity for Women (MDD-W)

Midline results show that almost 50% of WRA had consumed food from five or more food groups in the last 24 hours. The average number of food groups consumed by WRA was significantly higher in the midline (4.69) compared to the control group (4.43). When comparing the midline groups, the average number of food groups consumed was significantly higher in the S&L group compared to every other group. Among WRA in the midline, 49.2% met the MDD-W requirement compared to only 16.4% in the baseline. This difference was significant. However, there was no significant difference between the midline and control group (44.9%).

Chart 8: Consumption of food groups by women of reproductive age**Figure 2: Most and least commonly consumed foods for WRA midline respondents****MOST COMMONLY CONSUMED**

Grains



Dark green leafy vegetables

MODERATELY CONSUMED

Other Vitamin-A rich fruits & vegetables



Meat, poultry & fish



Legumes



Eggs

LEAST CONSUMED

Nuts & seeds



Other vegetables



Dairy



Other fruits

*Note: Most commonly consumed foods were consumed by 88%+ of WRA; moderately consumed foods were consumed by 36%-54% of WRA; least consumed foods were consumed by 14%-31% of WRA.

Chart 9: MDD-W for women per group

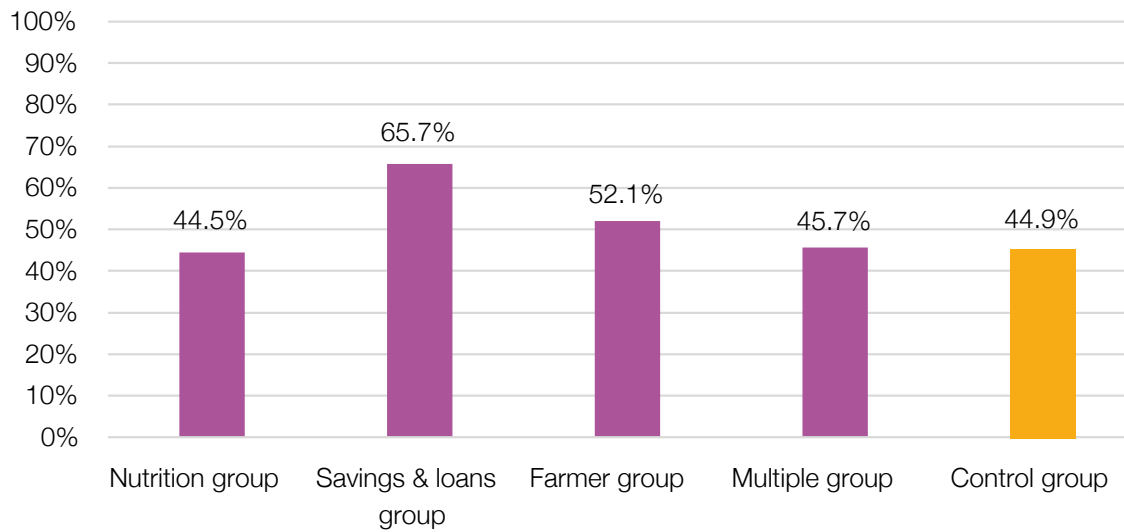


Chart 10: MDD-W, baseline, midline and control

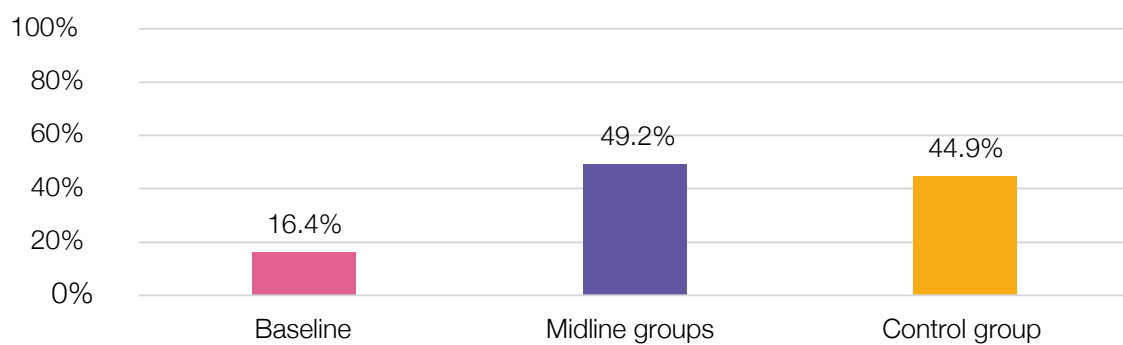
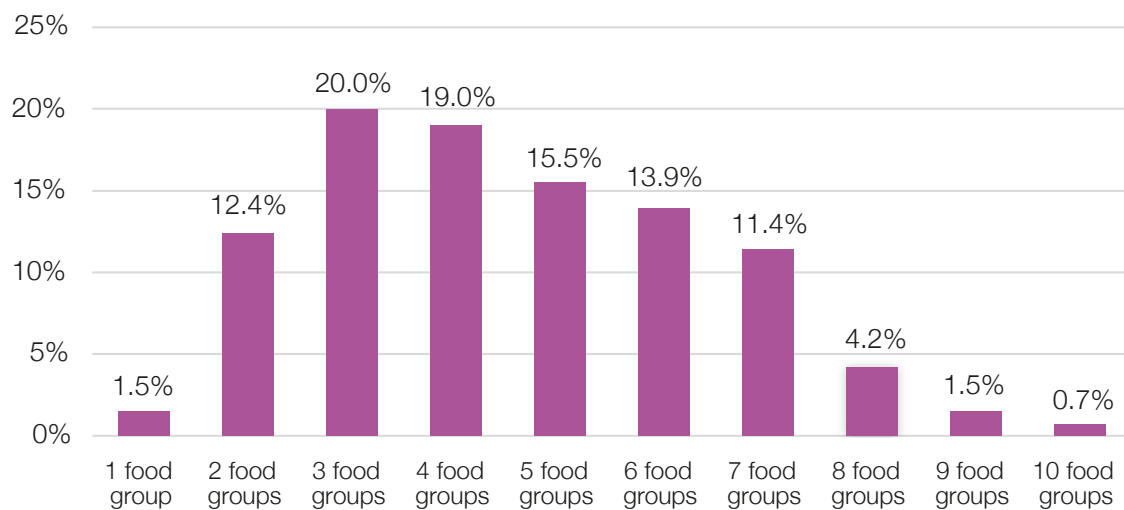


Chart 11: Proportion of WRA who have eaten a certain number of food groups in the past 24 hours



3.7. Minimum Dietary Diversity for Children (MDD-C)

Just over a third of children (34.7%) in the nutrition group met the MDD-C, compared to 28.0% in the control group, but this difference was not significant. Significantly more children met the MDD-C in the midline (35.8%), compared to the baseline (10.8%). In addition, the proportion of breastfed children that met the MDD-C was significantly higher in the midline (44.4%) compared to the control group (32.9%). For non-breastfed children, the difference between the midline and control group was not significant.

Chart 12: MDD-C for children 6-23 months nutrition group vs control

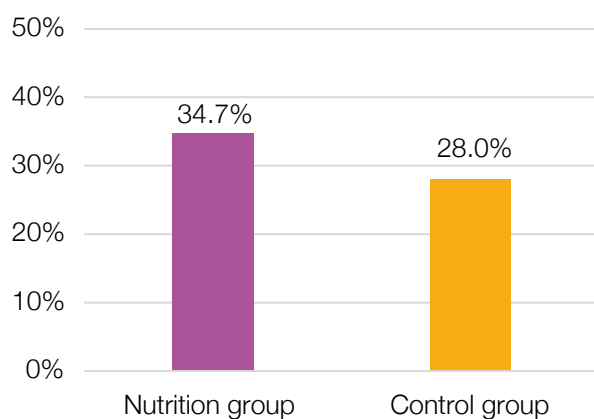
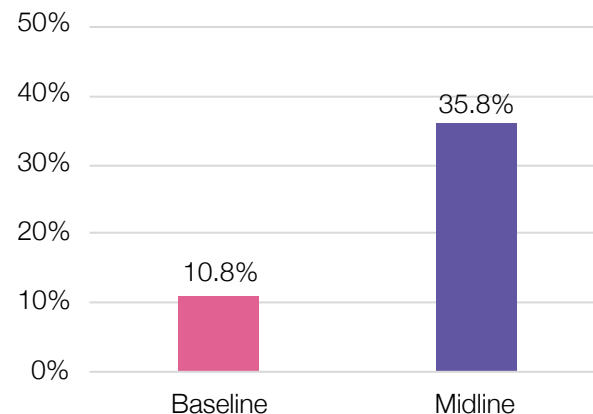


Chart 13: MDD-C for children 6-23 months baseline vs midline

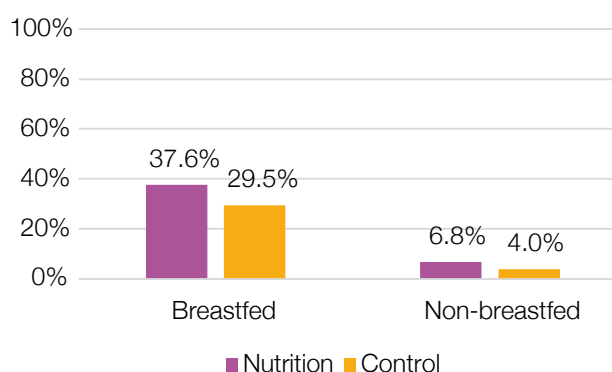
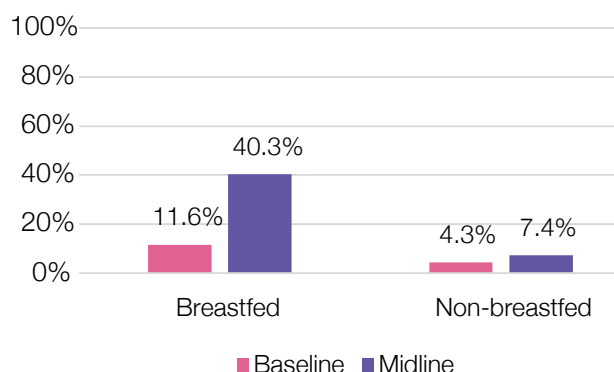


3.8. Minimum Meal Frequency for Children (MMF)

Midline results do not show significant differences in the proportion of breastfed children aged between 6-8 months that met the MMF, between the nutrition (76.9%) and control group (89.1%). In addition, there was no significant difference among the proportion of breastfed children aged between 9-23 months that met the MMF, between the nutrition (89.6%) and control group (81.7%). The proportion of non-breastfed children that met the MMF also does not differ significantly between the nutrition (68.5%) and control group (53.3%). When comparing the midline to the baseline, there were no significant differences among breastfed children aged between 6-8 months, among breastfed children aged between 9-23 months, or among non-breastfed children.

3.9. Minimum Acceptable Diet (MAD)

The proportion of breastfed children that met the MAD was significantly higher in the midline (40.3%) compared to the baseline (11.6%). However, there was no significant difference in the proportion of breastfed children that met the MAD between the nutrition and control group. There was also no significant difference in the proportion of non-breastfed children that met the MAD between midline and baseline, or between the nutrition and control group. It should be noted that the percentage of non-breastfed children who met the MAD is much lower than for breastfed children.

Chart 14: MAD children 6-23 months, nutrition vs control group**Chart 15: MAD children 6-23 months, baseline vs midline**

3.10. Food Consumption Score (FCS)

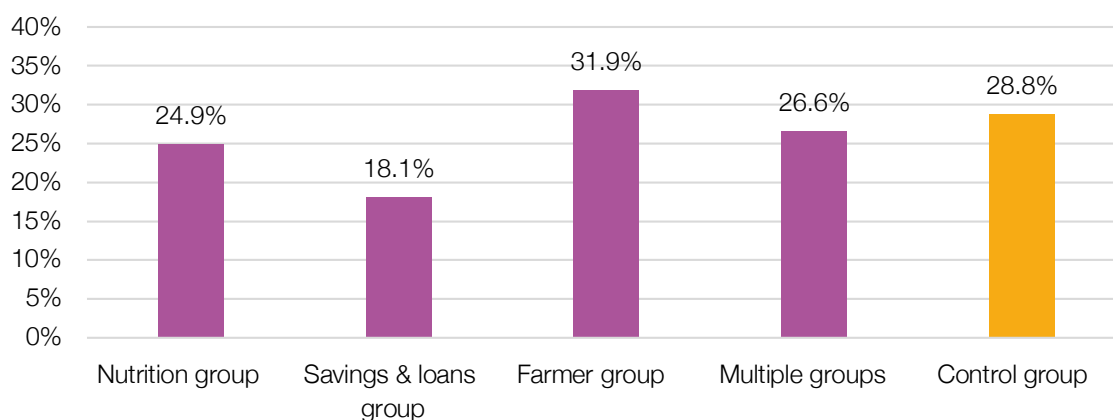
The average FCS was significantly higher among midline respondents (52.95) compared to baseline respondents (43.79). In addition, midline respondents scored significantly higher on the FCS than respondents from the control group (48.64). The proportion of households with an acceptable FCS was higher in the midline (85.6%), compared to the baseline (62.9%). When comparing across group types, the average FCS was significantly lower for respondents in the nutrition group than for respondents in the S&L group and farmer group, and compared to respondents that participated in multiple groups.

Table 8: Average FCS per group

Group	Average Food Consumption Score
Multiple groups	55.44
Savings & loans group	53.44
Farmer group	52.80
Nutrition group	49.13
Total midline	52.95
Control group	48.64

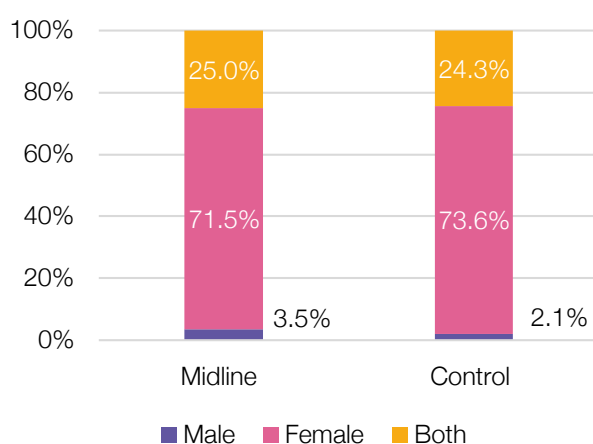
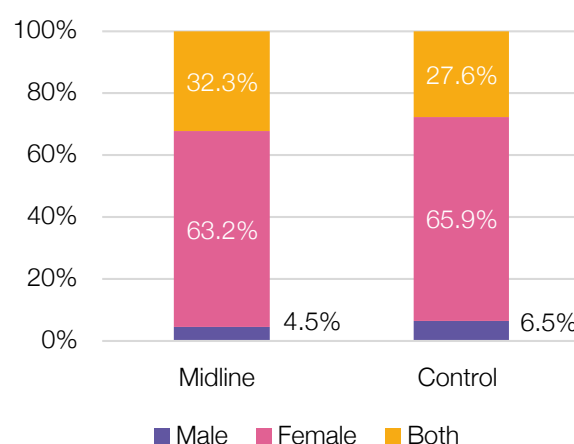
3.11. Food Insecurity Experience Scale

The proportion of respondents that experienced severe food insecurity in the preceding 12 months was very low per group; 2.3% in the nutrition group, 1.4% in the S&L group, 1.6% in the farmer group, 1.6% among respondents that were part of multiple groups, and 2.6% in the control group. There was no significant difference in the distribution of respondents experiencing severe food insecurity between the groups. In addition, there was no significant difference between the control group and the midline groups (1.7%).

Chart 16: Proportion of respondents experiencing moderate to severe food insecurity per group

3.12. Household decision-making (HHDM)

Results reveal that 71.5% of WRA perceived that women make the decisions about what the household eats and 63.2% of men perceived that women make these decisions. Roughly 25-30% of WRA and men believed that couples share the decision, with only 3.5% of WRA and 4.5% of men perceiving that men alone take decisions about what the household eats. The vast majority (95.7%) of WRA reported being satisfied or very satisfied with their role in these decisions, compared to 93.7% in the control group; this difference was not significant. For decisions about buying protein-rich foods such as eggs, fish, tofu, beans, both WRA (59.6%) and men (46.2%) reported that these decisions are predominantly made by women, and 37.9% of WRA and 48.0% of men reported that couples share these decisions.

Chart 17: Perception of WRA on who takes decisions about what the household eats**Chart 18: Perception of men on who takes decisions about what the household eats**

3.13. Finance

Access to financial training in the last 12 months was significantly higher among midline respondents (35.4%) compared to the control group (6.3%). In terms of taking out loans, significantly more midline respondents (54.0%) had taken out a loan compared to the control group (27.9%). In addition, significantly more midline respondents (83.4%) made savings compared to the control group (64.4%). The proportion of respondents that made savings was higher for the S&L group as well as for respondents that participated in multiple groups, compared to the other groups.

Chart 19 shows that money borrowed from S&L groups was mostly spent on school fees and other school-related costs and on food purchases. Food types that were bought most often were meat, eggs and fish.

Chart 19: Purposes for which money borrowed from S&L groups was used

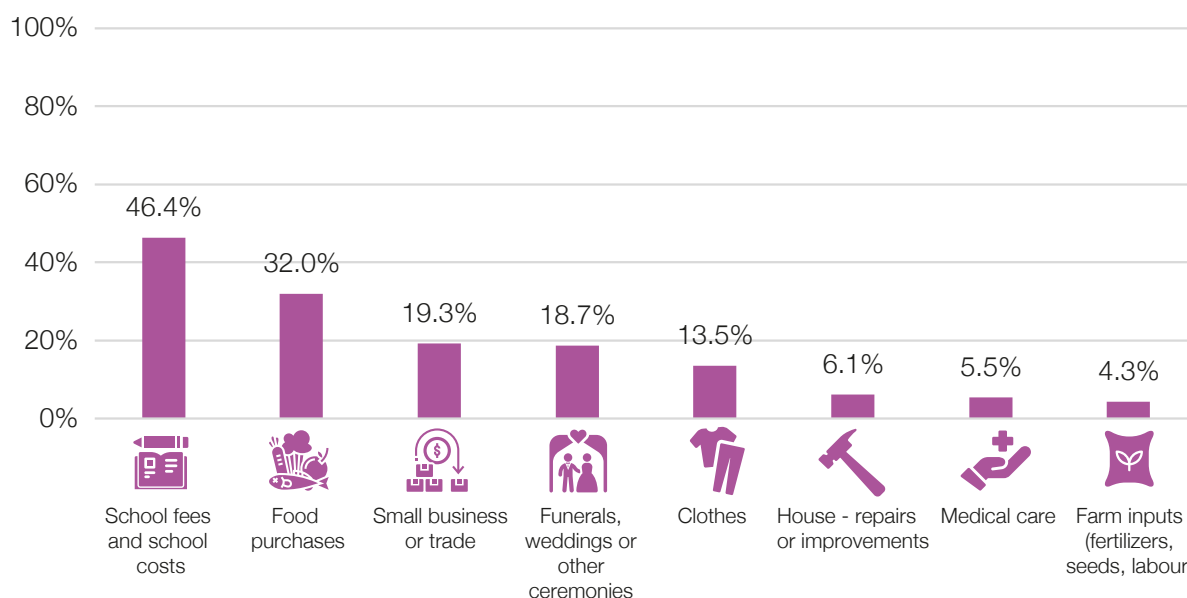
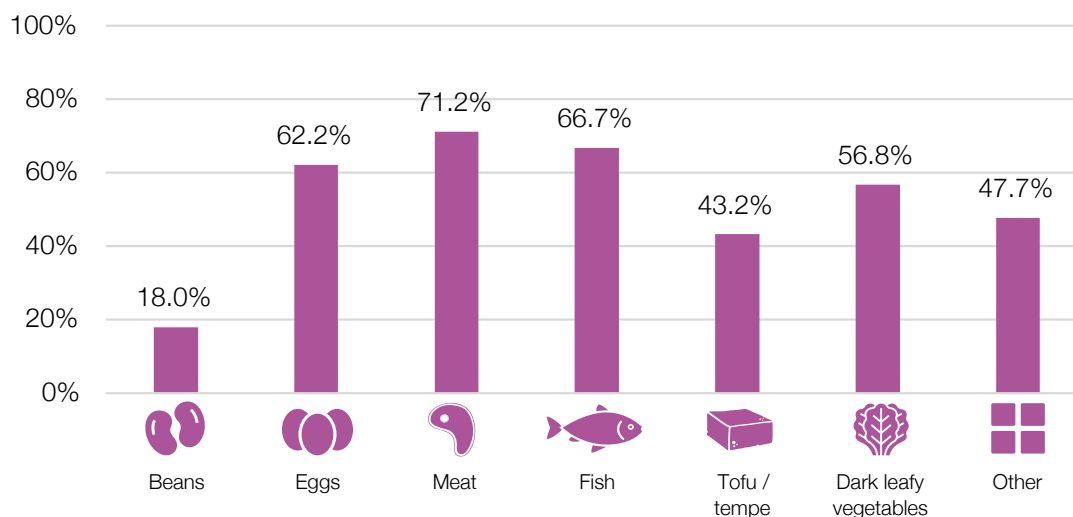


Chart 20: Types of food that were bought with loans from S&L groups



Among midline respondents with a loan, 16.6% had been unable to make a loan repayment at the required time, as opposed to 28.0% in the baseline. This difference was significant. The proportion of respondents that were unable to make a loan repayment was lower in the S&L group as well as among respondents from multiple groups, compared to the other groups (see Chart 21).

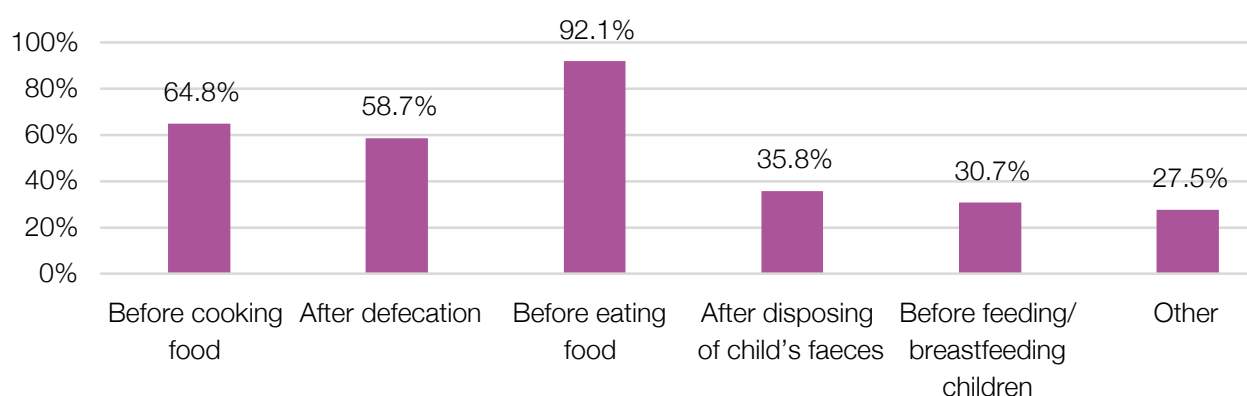
Chart 21: Proportion of respondents per group who had been unable to repay a loan in the past 12 months



3.14. Hygiene

The midline asked when respondents thought it was important to wash their hands. Respondents could select multiple answers. These can be seen in Chart 22. Most respondents reported that it was important to wash their hands before eating food (92.1%). However, the percentage of respondents that believed it was important to wash their hands before feeding children was fairly low (30.7%).

Chart 22: Proportion of respondents selecting moments for handwashing



3.15. Key findings across group types

Complemented by TOMAK-led institutional strengthening activities, Component 1 community level interventions were delivered through implementing partners. These institutional strengthening and community level approaches were guided by the TOMAK SBC strategy which identifies audiences and the key practices to promote with each audience by behavioural theme.

While there was some variation across partner approaches and training materials, approaches were aligned across three main community group types: farmer groups, nutrition groups, and S&L groups. Nutrition content was layered on early into the establishment of farmer groups and into S&L groups later on into the establishment process. HHDM content was also layered on to well-established farmer, S&L, and nutrition groups to ensure comfortability in discussing household dynamics. Based on this broad implementation modality across partners and community groups, there are key findings that emerge across the three community group types:

Key findings across group types

- Dietary diversity in WRA was highest in S&L groups, then farmer groups, then multiple groups and lastly nutrition groups.
- FCS score was highest in S&L, multiple groups, then farmer groups and lastly nutrition groups.
- Nutrition groups had the highest nutrition knowledge. This did not equate to the highest dietary diversity for WRA or FCS for the household.
- Participation in multiple groups was linked to households having a greater number of income sources.
- S&L group members mainly took loans out for education expenses and for food purchases (e.g. meat, fish, eggs).
- Farmer groups produced the highest volume and more diverse crops compared to other groups.

The approach of using S&L groups to increase access to financial services at the community level and to layer on additional interventions clearly had a significant impact. This includes positive results across several TOMAK indicators including nutrition, S&L, and HHDM. Farmer groups have also had an impact on increased access and consumption of nutritious foods.

3.16. Results against TOMAK indicators

The key results under each KEQ have been included in Table 9, together with the relevant indicators that were measured. Across these key indicators, the majority of targets have been achieved.

Table 9: TOMAK indicators and results

Indicator	Baseline	Midline	Yr 5 target/ assessment
KEQ 1: To what extent has TOMAK contributed to households having year-round access to sufficient and nutritious food?			
Proportion of households producing nutritious food	<ul style="list-style-type: none"> Orange flesh fruit = 86% DGLV = 79% Orange flesh vegetables = 66% Legumes = 29% Other fruit = 24% Other vegetables = 19% <p>AVERAGE 50% respondents producing these crops</p>	<ul style="list-style-type: none"> Orange flesh fruit = 62% DGLV = 66% Orange flesh vegetables = 67% Legumes = 53% Other fruit = 64% Other vegetables = 51% <p>AVERAGE 92% respondents producing these crops</p>	<p>20% average increase across all crop types</p> <p>Assessment: Reached</p>
Proportion of households reporting purchase of identified nutritious foods	<ul style="list-style-type: none"> Orange flesh fruit = 6% DGLV = 31% Orange flesh vegetables = 23% Legumes = 41% Other fruit = 16% Other vegetables = 27% Meat, eggs and fish = 32% <p>AVERAGE 25% purchasing these foods.</p>	<ul style="list-style-type: none"> Orange flesh fruit = 22% DGLV = 33% Orange flesh vegetables = 43% Legumes = ?⁹ Other fruit = 20% Other vegetables = 18% Meat, eggs and fish = 92% <p>AVERAGE 37.95% purchasing these foods</p>	<p>30% average increase across all food types</p> <p>Assessment: Reached</p>
Proportion of households with improved year-round food security	60% of respondents reported food insecurity in the preceding 12 months	26% of respondents reported food insecurity in the preceding 12 months	<p>Reduction to 40%</p> <p>Assessment: Comparisons with baseline not possible as baseline did not use FIES</p>

⁹ The FCS score was used to generate this data. The FCS does not include Legumes.

Indicator	Baseline	Midline	Yr 5 target/ assessment
KEQ 2- To what extent has TOMAK contributed to household consumption of more nutritious food?			
Proportion of WRA that report having greater decision-making power and satisfaction in regard to household decision making, especially household food production, consumption and related expenditure	<ul style="list-style-type: none"> 80% WRA reported having decision-making responsibility for which food would be purchased for family consumption 69% WRA reported having decision-making responsibility for which animals would be raised on the farm 42% WRA reported having decision-making responsibility for which crops would be eaten or sold 42% WRA rated their satisfaction with decision-making responsibilities as 3/5 and 54% gave a rating of 4/5 	<ul style="list-style-type: none"> 98% WRA reported having decision-making responsibility for which protein rich food would be purchased for family consumption 84% WRA reported having decision-making responsibility for which animals would be raised on the farm 87% WRA reported having decision-making responsibility for which crops would be eaten or sold 96% WRA rated their satisfaction with decision-making responsibilities (purchase of protein rich food + livestock raising) as satisfied or very satisfied 	<p>15% increase on the baseline average score of the 4 questions together</p> <p>Assessment: Comparisons with baseline not possible as questions were asked differently between studies</p>
Proportion of WRA with improved dietary diversity score (MDD-W)	<p>AVERAGE: 16% WRA reach MDD-W</p> <ul style="list-style-type: none"> Baucau: 15% Viqueque: 16% Bobonaro: 19% 	49% of WRA reach the MDD-W	<p>25%</p> <p>Assessment: Reached</p>
Proportion of children aged between 6-23 months of age with improved minimum acceptable diet score (MAD)	<ul style="list-style-type: none"> 7% of breastfed children aged 6-8 months reach MAD 17% of breastfed children aged 9-23 reach MAD (12% of breastfed children aged 6-23 months reach MAD) 4% of non-breastfed children aged 6-23 months reach MAD 	<ul style="list-style-type: none"> 24% of breastfed children aged 6-8 months reach MAD 46% of breastfed children aged 9-23 reach MAD (40% of breastfed children aged 6-23 months reach MAD) 7% of non-breastfed children aged 6-23 months reach MAD 	<p>10%</p> <p>25%</p> <p>N/A</p> <p>5%</p> <p>Assessment: Reached</p>
Proportion of households with improved food consumption score (FCS)	<ul style="list-style-type: none"> Average FCS= 43.79 63% have acceptable FCS 	<ul style="list-style-type: none"> Average FCS = 52.95 86% have acceptable FCS 	<p>30%¹⁰</p> <p>Assessment: Improved (target no longer relevant)</p>

¹⁰ The baseline FCS required recalculating and consequently changed from 19% of households having an acceptable FCS to 63%. Therefore, the target is no longer relevant.

4. Recommendations/ lessons learned

NSA is an impactful approach

TOMAK's overarching goal is to ensure that rural households live more prosperous and sustainable lives. Results show that TOMAK has made a positive and significant contribution to increased access and consumption of nutritious foods. Utilising an NSA approach and strengthening the link between agriculture and nutrition to focus on the promotion of nutritious crops that address known nutrient gaps in Timor-Leste has demonstrated impact for TOMAK.

While substantial areas for further improvement still remain, approaches that show the greatest impact should be continued as a key component of TOMAK's approach in Phase 2. S&L groups demonstrated the highest improvement across key assessment areas in the midline. A key emerging finding from the midline is that when nutrition content is layered on to other group types, there is greater impact.

Farmer groups have also shown significant change across key assessment areas, especially production of diverse crops. TOMAK should build off these lessons in Phase 1 and seek to strengthen the linkages across S&L and farmer groups going forward. Agriculture, nutrition and access to financial services are key components in meeting TOMAK's broader outcomes and should be fully integrated going forward. This may result in an approach where there is full integration of group types and little to no distinction between groups.

Social behaviour change (SBC) should continue to be an integral part of TOMAK's approach to NSA

Midline results showed higher levels of NSA knowledge, more positive attitudes, and behaviour change in intervention areas. There is also evidence to show that TOMAK's key messages are consistent and reinforced through multiple platforms (e.g. across community group types and government service providers). A strong SBC approach should continue in Phase 2 and include regular monitoring and tracking of uptake of key practices, in between larger midline and endline studies.

Household decision-making should continue to be an integral aspect of TOMAK's approach

Changing gendered social norms requires a long-term commitment. The midline demonstrated some level of movement in increased household decision-making between couples on farming, use of household resources, and the prioritisation of nutritious foods. The importance of gender equity and an equitable division of labour should continue to be an essential aspect of TOMAK's approach. This includes the further layering of HHDM modules early on into community groups to promote shared decision-making and male involvement in household nutrition and to encourage reinforcement and support from government service providers (e.g. agriculture extension workers, health providers).

Mainstream disability inclusion and support

Approaches should be adopted that encourage and enable participation of people with disabilities in all activities. TOMAK should continue to support people with disabilities that participate in TOMAK

activities to be referred to disability services as needed and explore ways to ensure that the needs of people with disabilities are met in TOMAK activities so that they are able to apply what they learn through the activities to the same extent as people without disabilities.

Deepen the focus on water conservation and access to water within a broader resilience strategy

Challenges around water access were raised repeatedly in the FGDs as a key barrier to increased and diverse household production. TOMAK supported a variety of agriculture approaches such as conservation agriculture (CA) approaches, climate smart agriculture (CSA), water-efficient systems such as drip irrigation, rain water harvesting, and drought resistant seeds. In Phase 2, TOMAK should develop a water access and management strategy for target communities and households that is consistent across components and implementing partners.

Consolidate learnings across TOMAK and partners on storage techniques

Food storage is a key component that contributes to food stability (one of the four pillars of food security) and household resilience. Midline results showed that respondents are practicing food storage and to some extent utilising improved storage techniques. These efforts should be increased in Phase 2 to further influence Food Insecurity Experience Scale (FIES) scores, improve resistance to various climatic shocks, and increase household capacity to withstand annual lean seasons.

