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COMMUNICATIONS SUPPORT FOR HEALTH (CSH) PROGRAMME

**NUTRITION COMMUNICATION PROGRAMME (NCP): OPERATIONS RESEARCH
STUDY REPORT**

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INTRODUCTION

Good nutrition is essential for healthy and active lives and directly affects the intellectual capacity of human beings, which eventually affects the possibility of social and economic development for a country. The most critical period for influencing both the physical and intellectual development of a child through nutrition is in the first 1,000 days of his or her life, starting at conception and continuing through the first two years after birth.

The achievement of optimal nutritional status (and subsequent appropriate physical and intellectual development) amongst Zambians is anchored on an appropriate diet and healthy lifestyle, which in turn are dependent on stable and sustainable food security, supportive caring practices, a healthy environment, and accessible quality health services.¹ In Zambia, the levels of malnutrition, measured through rates of stunting (defined as low height for age), are high and have remained static over time. In the 2007 Zambia Demographic and Health Survey (ZDHS), 45 percent of children were stunted, 5 percent were wasted (low weight for height), and 15 percent were underweight (low weight for age). The highest prevalence of stunting is in the rural areas (48 percent), as compared to the urban areas (39%).²

In order to address the high rates of malnutrition in Zambia, the Ministry of Health (MOH), Ministry of Child Development, Maternal and Child Health (MCDMCH), in collaboration with the U.S. Agency for International Development (USAID)-funded Communications Support for Health (CSH) project and other partners, launched a national First 1,000 Most Critical Days Program (1st 1,000 MCDP). Aligning to the National program, CSH designed and implemented a nutrition communication programme to promote improved practices and care-seeking behaviours. The 1st 1,000 MCDP communication component includes the CSH products but also other materials such as the United Nations International Children's Emergency Fund (UNICEF) Counselling Cards.

CSH incorporated its nutrition communication programme into its Stop Malaria campaign in early 2014. The primary channel through which the Stop Malaria and Nutrition integrated campaign is implemented is a community-driven behaviour change initiative called Champion Communities. In this initiative, communities establish their own goals and action plans, design their own community activities, conduct monthly self-monitoring, and use public presentation of the data/progress toward goals to motivate everyone in the community to participate. A cadre of Community Malaria Agents (CMAs) meets monthly with each participating household to provide counselling as well as to collect data on key behaviours. The malaria program has been up and running since June 2013. In December of the same year, CSH completed the design and production phase of the Nutrition Communication Programme (NCP) and signed contracts with five Civil Society Organisations (CSOs) to implement the joint program.

For the NCP, the CMA refers the mother to a biweekly group meeting held with a Nutrition Promoter (NP) if the household contains either a pregnant woman or a child under age 2. CSH trained the CSOs in

¹ U.S. Agency for International Development (USAID). (2003). *Analysis of food security, health and nutrition in Zambia* (Lusaka).

² Central Statistical Office (CSO), Ministry of Health, Tropical Diseases Research Centre (TDRC), University of Zambia, and Macro International Inc. 2009. *Zambia Demographic and Health Survey 2007*. Calverton, Maryland, USA: CSO and Macro International Inc.

how to implement the joint programme and how to use the CSH nutrition products. The CSH-produced package of behaviour change products includes a growth reminder card, child feeding mat, radio show, child feeding game, and a child feeding bowl. The child feeding bowl was the last product to roll out through the project to participating households, and, as such, it was not included in this ICF-led evaluation of the NCP.

NPs were tasked with organizing and conducting group meetings with pregnant women and mothers of children under age 2 every other week. Each CSO recruited and trained NPs and conducted the programme slightly differently. For example, one CSO combined the duties of NPs and CMAs, while others had separate NPs and CMAs. CSH provided the NP Guide to support the programme, but CSOs were not contractually obligated to use it. The guide outlined a curriculum, cooking demonstrations, games, and discussion prompts for the group meetings to support and facilitate the use of the CSH products in a group setting.

CSOs were responsible for introducing the programme to the community, health centre, and district-level officials. They recruited, trained, monitored, and supervised the NPs over a six to eight month period. CSH conducted monitoring missions to support the CSOs and NPs, and created supportive supervision checklists to streamline the monitoring process and encourage mentorship. District and health centre staff also participated in monitoring.

Research Study Rationale and Objectives

Study Rationale

The purpose of this operations research study is to provide information to implementers of the government-led 1st 1,000 MCDP on the strengths and weaknesses of the CSH communication component designed for CSH and implemented through CSH-supported CSOs. This information will be used for the expansion and scale-up of the programme.

Study Objectives

The primary objective of this study is to learn about the use of the CSH nutrition communication programme materials and activities; their acceptability, usability, and usefulness; and their perceived effect on improving nutrition- and hygiene-related knowledge, attitudes, and practices. Findings from the study will provide information to the MoH, MCDMCH, the National Food and Nutrition Commission (NFNC), and MCDP implementers to understand how CSH's nutrition communication programme can be further integrated into the National 1st 1,000 MCDP and other nutrition programs and how it can be improved and effectively rolled out at a national level.

Specifically, the study has the following four main research objectives:

- Assess the target audiences' participation in (e.g., exposure to) the NCP and use of materials/products.
- Assess the target audiences' (mothers and fathers of children under age 2) understanding of and knowledge gained from the NCP.
- Assess the perceived effectiveness of the NCP through the target audiences' self-reported changes in nutrition- and hygiene-related attitudes and practices.
- Assess potential ways or recommendations to improve delivery, localization, and impact of the NCP.

RESEARCH METHODOLOGY

Study Design

The qualitative study employed in-depth interviews (IDIs) with key audiences and programme implementers to gain an understanding of how the nutrition communication programme was carried out, how it was received by the intended audiences, and the ways in which it should be incorporated into and best scaled up under the National 1st 1,000 MCDP.

Study Audiences

Two study audiences were identified: those who participated in the CSH programme and those who implemented it. Participants of the CSH-led NCP include the following:

- Mothers of children aged 0–6 months
- Mothers of children aged 7–11 months
- Mothers of children aged 12–23 months
- Fathers of children aged 0–23 months

Programme implementers for the study include the following:

- Nutrition promoters
- CSO staff
- District nutritionists
- Health centre managers

IDIs with key audiences focused on participation in the programme, and understanding of the key nutrition and hygiene concepts conveyed under the nutrition communication programme, as well as perceived changes in nutrition- and hygiene-related practices due to the communication activities. IDIs with programme implementers focused primarily on the effectiveness of the implementation process of the NCP and its usefulness.

Study Setting

Fourteen districts have been prioritised by the Zambian Government for Phase 1 of the implementation of the 1st 1,000 MCDP, based on high levels of stunting and poverty: Mumbwa (Central Province); Chipata and Lundazi (Eastern Province); Mansa and Samfya (Luapula Province); Chinsali (Muchinga Province); Kaputa, Kasama, and Mbala (Northern Province); Mwinilunga and Zambezi (North Western Province); and Kalabo, Mongu, and Shangombo (Western Province).

The CSH-led NCP is being implemented in the following eight districts: Chipata, Chadiza, Mbala, Mpulungu, Mongu, Kaoma, Mansa, and Samfya districts. Of these eight districts, five overlap with those in the 1st 1000 MDCP districts: Chipata, Kasama, Mansa, Mongu, and Samfya. CSH contracted five CSOs to implement the programme in the 8 CSH districts. The five CSOs are MARCH Zambia, Kasama Christian Community Care (KCCC), Luapula Families in Distress (LUFAlD), Group Focused Consultants (GFC) and CARITAS. Across the eight districts, the CSOs are working in a total of 135 nutrition communities (Table 1).

Table 1: Communities with CSH-led NCP

CSO	District	Number of Communities
MARCH Zambia	Kaoma	33
	Mongu*	27
KCCC	Kasama*	3
	Mpulungu	4
LUFAID	Mansa*	10
GFC	Samfya*	22
CARITAS	Chipata*	18
	Chadiza	18

*Indicates a district that has both the 1st 1,000 MCDP and CSH-led NCP

Sampling Methodology

District and Community Selection

We utilized a purposive sampling approach for this study. First, two districts were selected for inclusion. Selection was based on the CSO working in the district; specifically, how well the CSO had performed and progressed in terms of the implementation of the NCP. The previous monitoring and supportive supervision visits with each of the CSOs that assessed the quality and status of implementation informed selection. Based on these criteria, we selected MARCH and GFC. Since MARCH was working in two districts, the government priority one district was selected; therefore, the Mongu and Samfya districts were selected for the study.

From each district, we selected two communities as study sites. Selection was based on the communities' performance to-date and how far along they were in implementing the nutrition promoter group sessions (taking into consideration only communities that completed six or more NP group sessions) were the selection criteria for inclusion. CSH staff, in collaboration with the CSO staff working on the project, determined the selection criteria. In Mongu district, the communities Kaande and Ndiki were selected, and from Samfya district, Chinweshiba and Musaila were selected.

Participant Selection

Across the four communities, 55 participants were selected for an IDI. Of the 55 IDIs, 36 were conducted with programme participants: mothers of children aged 0–23 months (broken out by those with children aged 0–5 months, children aged 6–11 months, and children aged 12–23 months to ensure all ages were covered) and male partners of the mothers who were involved in the CSH nutrition programme. The remaining 19 IDIs were conducted with programme implementers of the CSH nutrition programme. These implementers included two District Nutritionists (DNs) and two health centre staff members who have been working with the programme in Mongu and Samfya. Additionally, two NPs from each community were interviewed, for a total of eight NPs. Lastly, from the two study districts, IDIs were conducted with two CSO staff members; one responsible for supervising the project and one in charge of supervising the work of the NPs. IDIs were also conducted with one key CSO staff member, from each of the remaining three CSOs, who is responsible for supervising the project. Table 2 shows the breakout of the final sample of the 55 participants interviewed.

Table 2: IDI Segmentation Matrix

Participant Segment	Mongu District (CSO MARCH)		Samfya District (CSO GFC)		Other CSOs	Total
	Kaande	Ndiki	Chinweshima Village	Musaila Village		
Key Audiences						
Mothers with children 0–5 months	2	2	2	2		8
Mothers with children 6–11 months	2	2	2	2		8
Mothers with children 12–23 months	3	3	3	3		12
Fathers of children 0–23 months	2	2	2	2		8
Total for key audiences	9	9	9	9		36
Programme Implementers						
District nutritionists	1		1			2
Health centre staff	1		1			2
Nutrition promoters	2	2	2	2		8
CSO nutrition promoter supervisor	1		1			2
CSO programme manager/supervisor	1		1		3	5
Total for programme implementers	8		8		3	19

Recruitment Procedures

Trained research assistants worked closely with the CSOs and NPs to recruit the participants (mothers of children aged 0–2 years and fathers of children aged 0–2 years). Mothers of children aged 0–2 years were selected purposively based on their level of involvement in the NCP in the target community and to ensure mother’s had children of all ages from 0 to 2 years of age. Specifically, those who had participated in at least 50 percent or more of the NP-led group meetings were selected for inclusion in the study. Once women had been selected for inclusion in the study, a subset were asked if their partner could also be interviewed (who were fathers of children aged 0–2 years).

CSH utilised the following steps to select participants:

1. CSO staff or NPs identified potential participants based on recruitment criteria, using available tracking forms to identify mothers of children aged 0–23 months who had attended the most group meetings.
2. CSO staff or NPs introduced potential participants to the research team.
3. The research team conducted independent screenings of potential participants to assess eligibility.
4. Eligible participants were asked for willingness to participate based on the information sheet and consent procedures.
5. Willing participants were identified, and an interview time was set up for them.

The DNs from each district was asked to participate. One health centre staff member was chosen based on 1) the centre that serves the two communities selected in the study, and 2) the staff member who had been the most involved in the communication component.

The roster of NPs from each of the CSOs was used to recruit the NPs. The NPs from each of the communities were selected based on their consistent involvement conducting group sessions in the four selected communities.

CSO staff members from each CSO were selected based on their role in the project, either as a supervisor for the nutrition promoters or as a project manager or supervisor for the project. In Mongu and Samfya districts, the CSO staff members were interviewed in person. For the three remaining CSOs, the project manager from the CSO were interviewed over the phone.

Data Collection

Data collection took place from 11 to 17 July 2014. Two teams, which consisted of research assistants who conducted the interviews and a supervisor, conducted the data collection in the two districts. Programme implementers were interviewed at their work in a private setting. Interviews with the mothers and fathers were conducted in a private setting convenient to the participant.

Study Tools

The study used semi-structured interview guides that were tailored to each subject group mothers of children aged 0–23 months, fathers of children aged 0–23 months, district nutritionists, health centre staff, nutrition promoters, and CSO staff members (refer to Appendix I-V for the guides). The majority of the interview guides were piloted and revised. The pilot-testing was conducted in Kaoma district with the CSO MARCH Zambia and included interviews with all audiences, with the exception of DNs and fathers of children aged 0–23 months, whom we were unable to recruit at the time of the pilot. The site was selected because it was easy to access and it was in a community that was similar to those targeted for the study.

The interview guides were originally in English but were translated into Lozi and Bemba, the two most common languages for the selected study sites.

Training of Research Assistants

Research assistants collected the data, recorded notes, transcribed and translated the data. They were trained in conducting qualitative formative research by CSH program and research staff. All facilitators also participated in the training. Specific training modules included: background on the study's research aims and objectives, qualitative research methods and data collection techniques, including interviewing skills, consent procedures, ethical considerations, and other relevant information.

The data collection team was recruited based on competence and experience in conducting qualitative research and in understanding the language of the location where the data collection took place.

Consent and Interview Procedures

Study participants were first provided with information regarding the study, including whom the study was targeting; the objectives and methods of the study; the benefits and risks involved in participating in the study; the measures put in place to ensure participant confidentiality; and their rights to abstain

or withdraw from the study at any time. After providing this information written consent was obtained before initiating the interview.

Team Composition

Two data collection teams were composed of 10 research assistants (five in each team) who were responsible for interviewing and guiding the proceedings of the interviews, and transcribing, translating, and typing the interview data. The research assistants were supervised by CSH research and programme staff, who provided feedback after observing a sample of interviews, and ensured that logistics and procedures were adhered to.

Data Management

Transcription and Text Translation

Digital recorders were used to record the data and, after the interview, the audio data were transcribed. All interviews were transcribed verbatim, in the language of the respondents. The transcription of data and the data collection were conducted simultaneously.

The research assistant who conducted the interview translated the transcribed text into English. All translated text was fully transcribed (not summarised) from the original language. All translations kept the intent of the original statement, while writing in correct English. Research assistants completed 55 transcripts for this report (see Table 2).

Data Confidentiality

To ensure confidentiality, one respondent was interviewed at a time and at a secluded location. No identifying information was present, ensuring that the data had no direct link to a particular person. Only project personnel were granted access to the data. To decrease risk of breach of confidentiality, all signed consent/assent forms were kept separate from the data and were only accessible to those on the research team.

Data Analysis

After the data collection was completed, CSH researchers provided the transcripts to a small team of CSH researchers, who then manually analysed the transcripts for emergent themes and patterns to develop the report. The team of writers worked together to ensure consistency in the process of analysis and writing.

FINDINGS

The findings are organised by the key research objectives of the study. For each objective, the results are presented, as appropriate, by each study group—including the programme participants and implementers. The findings are presented in the following sections:

- Implementation of the Nutrition Communication Programme
- Participation in the Nutrition Communication Programme
- Exposure to and Utilisation of the Communication Activities, Tools and Products
- Changes in Knowledge and Practises (Attributed to the Nutrition Communication Programme)
- Perceived Effectiveness of the Nutrition Communication Programme on Nutrition and Hygiene-Related Attitudes and Practices
- Participants' Recommendations for Improving the Nutrition Communication Programme
- Sustainability and Scalability
- Conclusions and Recommendations

Implementation of the Nutrition Communication Programme

NP-Reported Role and Implementation

All NPs had a good understanding of their role in the programme, describing their main roles as sensitizing the community, teaching pregnant women and mothers/caregivers of children aged 0–2 years through group meetings how to feed their children and maintain good hygiene, and informing pregnant women about how to care for themselves.

Most NPs also reported playing a key role in the recruitment of pregnant women and mothers into their groups, going from house to house to recruit eligible women into the programme. In some cases, NPs reported getting referrals from the CMAs on eligible women to recruit. A few NPs also reported working with the Induna or other headman in the village to recruit women.

All NPs held their group meetings in the community they were working in, either at a central place in the village, or, in one case, rotating from mothers' homes. As they were tasked to do, all NPs reported conducting the group meetings either on a weekly or biweekly basis, and many used a similar approach of going house to house to remind women to attend the meetings. All NPs stated that they used the nutrition promoter guide to help them prepare for the group meetings with the mothers.

Attendance at group meetings varied across the different NP groups, with one NP reporting as few as seven women attending meetings, to a few reporting that up to 30 or more women attended. There was some male partner participation in the meetings, but overall this was low and varied across the groups. The variation was likely due to how the different CSOs approached male involvement, with some inviting men to participate and others not. In some cases, other family members, community members, or mothers with children outside the specific age range would also attend. This was largely dependent upon whether NPs and the CSO staff felt that it was best to restrict attendance to just pregnant women/mothers of children aged 0–2 years and their partners.

With regards to district government staff attending the meetings, about half of the NPs reported that district staff attended their meetings. However, overall they did not attend regularly, and in some cases staff only attended once. Interestingly, in one community, staff from the agricultural ministry got involved and attended some of the group meetings. In a few instances, health centre staff also reported

having attended the group meetings. This often occurred when the groups were carrying out the cooking demonstrations. All NPs reported that CSO staff attended group meetings, but the frequency varied across the different CSOs, from regularly (about every other meeting) to only attending the meetings when the cooking demonstrations were held.

The activities that the NPs felt that the women enjoyed the most were the cooking demonstrations, particularly learning new cooking methods; the feeding game; and the building of the tippy taps. With regards to what topic areas the NPs thought the women learned the most from, a few NPs noted that all of the topics were helpful: *“All the topics...they would start doing what we taught them, which means they knew what they were doing and it showed they liked what they were doing”* (NP from Musaila). Most NPs reported that women learned the most from the topics on breastfeeding (in particular, how to hold the baby properly while breastfeeding, exclusive breastfeeding for six months, and complementary breastfeeding and hygiene as it relates to hand washing), keeping their environment clean, and creating safe play places.

In terms of activities in the group meetings that the NPs perceived to be the most challenging, a few NPs expressed that it was difficult to get all the supplies needed for the cooking demonstrations, as the women were not able to always bring everything that was needed, particularly some of the two-star foods (two star foods are Animal Source Foods like eggs, and meat)³. Another challenge, which was mentioned by those able to use the radio programme in the groups, was that because the programme was in English, not all the women were able to understand the programme⁴. This issue required that the NPs try to translate or summarise what was happening in the episode so that the participants could understand. A few other challenges mentioned were explaining the proper measurements of food that different age groups needed without having the feeding bowls to refer to⁵; teaching women to express breast milk for later storage, given most do not have a place to properly store it; and the making of tippy taps.

Only a few NPs reported making changes to the way that they conducted the group meetings. These changes included incorporating different learning techniques into the sessions, such as role plays, songs, and recaps of the information presented in the previous session(s): *“Sometimes we would start with a motivational song, some role play...before we would start we would remind ourselves of what we did in the previous meeting, after this people would be motivated”* (NP from Kaande).

Training, Monitoring, and Supportive Supervision for Nutrition Promoters

All the NPs reported receiving training from the CSOs to help prepare them for their role as an NP. The NPs' account of the amount of training received varied from one to four total days of training; however, the majority reported receiving a one- or two-day training. CSO staff noted that the NPs had received a two-day training. Similarly, the reported content of the training also varied across the NPs; however, the majority stated that the training covered an overview of the programme and the different products. A few NPs reported that the training included information on how to conduct the group meetings, provided hands-on practice teaching, and covered other topic areas such as under-five clinics and antenatal care. Despite the differences reported in the training received, all NPs felt that the training was adequate in preparing them for their role.

³ In some cases CSOs responded by providing 2 star foods to the cooking demonstrations.

⁴ The radio show has since been distributed in local languages to the CSOs.

⁵ The bowl has also been distributed to participants since data collection.

All NPs received support from the CSOs in the form of material and financial support (e.g., allowances, supplies, and products) and supervisory visits from CSO staff during group meetings. The majority also reported receiving peer support from another NP, who visited their group meetings to provide support and feedback. All NPs reported that they had attended another NP's group meeting, the majority of whom stated that the purpose was to provide peer support. In a few cases, NPs reported that they attended other NP group sessions in order to learn how others conducted the group meetings.

In terms of the use of supportive supervision forms and monitoring forms, only a few NPs reported that someone, either a CSO staff or another NP, used forms to observe and provide feedback on their performance. In some cases, the forms were used to evaluate peers, but this was not common.

CSO Awareness of Implementation and Role

All CSO staff had a good understanding that the main goal of the programme was to address malnutrition and stunting in children, as well as improve overall maternal health. Key components of the programme were reported to be the group meetings where women were taught how to feed children aged 0–24 months; the different products; cooking demonstrations; and supportive supervision of the NPs. For a few CSOs, the integration with the malaria campaign was seen as part of the programme, with CMAs and NPs either doing joint home visits or integrating nutrition aspects into the CMA home visits.

Awareness of Implementation

The main tasks of the NPs were seen as conducting the group meetings, leading the cooking demonstrations, sensitizing the women in the community on nutrition and recruiting them to be a part of the programme, and supervising other peer NPs. For the CSOs that integrated the roles of the NPs and CMAs, this meant that NPs were also conducting home visits or joint home visits with CMAs.

The CSO staff confirmed that the group meetings were either held once a week or every other week, depending on the agreement set between the CSO and the NPs. All CSO staff reported that they had attended at least a few of the NP group meetings. Similar to what NPs reported, women's attendance at group meetings varied considerably across communities (ranging from 10–40 women) and overall male participation was lower than expected. Other family member involvement depended on the area, in Samfya, other family members did attend the meetings, while in Mongu, Kasama, and Mpulungu districts, other members of the family were not invited to attend the meetings.

All CSO staff members confirmed that NPs were using the different products and conducting the various activities within the group meetings. Similar to the NPs, CSO staff felt that the cooking demonstrations were the most engaging activity for the groups and a few mentioned the child feeding game. In terms of the activities that were perceived to be the most useful, the cooking demonstrations, the feeding game, and the overall group discussions were those most reported by CSO staff. The CSO staff confirmed that the NPs used the NP guide to plan and guide their group meetings, in addition to the different products. One CSO staff member from Samfya noted that the NP guide really serves as "their bible...we have encouraged them to say this is your bible; whenever they want to conduct any meetings they should get the content from the guide."

Support and Training Provided to NPs by the CSO

The main support provided to the NPs included training and orientation to the programme, supportive supervision by peer NPs, routine monitoring visits by CSO staff, and allowances and other material support. CSO staff confirmed that all NPs received training, which provided an orientation to the programme, and a review of the different products, including the NP guide. One CSO staff member from

Mongu mentioned that the training also covered report writing, something that was not mentioned by any of the other CSO staff members or the NPs. The CSO staff members implementing the programme in Samfya and Mongu reported using the supportive supervision forms; however, the use of the forms by CSO staff and NPs themselves varied across the CSOs. Some CSO staff members reported using them to supervise the NPs, while only one reported having the NPs use the forms to conduct supervision of their peers. Overall, the supervision forms were perceived to be useful, as they helped the CSOs see how the programme was doing and identified capacity building needs for the NPs.

All CSOs reported conducting monitoring visits with the NPs to 1) ensure that activities were happening, 2) develop and review action plans with the NPs, 3) review progress and performance, and 4) provide feedback to the NPs. Overall, the CSOs felt that monitoring the NPs was useful, particularly the action planning, observation of performance, and one-on-one feedback for the NPs.

A few CSO staff members recommended that more resources be provided for monitoring, since it was financially challenging for the CSOs to do frequent monitoring visits with the resources provided. One member also suggested involving the health facilities in the monitoring of the NPs.

District Nutritionists and Health Centre Staff Awareness of Implementation and Role

Just as with the NPs and CSO staff, DNs and health centre staff had a good understanding of the main goal of the programme and were aware of the key activities. A few also noted the link between this programme and other health-related activities going on in the communities, such as growth monitoring and immunization clinics and other nutrition-related information exchange communication materials that were produced by MOH and NFNC. All reported learning about the programme through a stakeholders' meeting.

For the DN's and health centre staff, their involvement in the programme included meetings with the CSO, participating in the training of the NPs, attending the group meetings that had the cooking demonstrations, and helping supervise the NPs.

With regards to the DNs' and health centre staff members' awareness of the different communication products, all were aware of most of the products being implemented. The specific products that they reported knowing about varied.

Performance of NPs and Importance of Cadre of Community Agents

All the DNs and health centre staff felt that the NPs performed well, which they felt was evidenced by the mothers' understanding of the products and the information, their organisation of group meetings, and their production of reports. A few also mentioned how developing this type of cadre of community agents was a good strategy, since they live in the same communities as the mothers and therefore it is easy for them to recruit the women into the programme and follow up with them. One health centre staff member also explained that NPs played a role in linking the communities with the health centres: *"They are playing an important role to our side because they act as the agents of the health centres."*

General Approach

Overall, all the DNs and health centre staff felt that the programmes' general approach was good. The reasons given for this were that the women were able to come together in groups and be taught in a practical way; the group setting allowed women to participate and practise what they learned; the products are pictorial and are able to be explained in the groups; and women are able to take home the products and practise what they see. One health centre staff member noted, *"[I]t is a good approach and idea because previously we just use to talk to mothers and it was difficult to know if mothers have*

learnt or not, but now since they are [meeting] in groups and taught what to do practically and everyone participates, and they are able to remember and practise at home what they have been taught on good nutrition and hygiene practices.”

Participation in the Nutrition Communication Programme

Mothers’ Reported Participation

Mothers With Children Aged 0 to 23 Months

The number of group meetings that mothers reported attending ranged from 5 to 20. Meetings most commonly took place weekly in a village gathering space or at a home of someone in the community (i.e., NP or group member). Most women were in different PM groups.

Mothers most commonly learned about the meetings and the programme from their CMAs during home visits, NPS in community gatherings and schools, or through friends. The majority of mothers were initially motivated to attend the meetings to learn more about how to care for their children; although a few mothers attended because they were encouraged to do so by friends, NPs, or CMAs. All of the mothers felt compelled to continue attending the meetings because they saw great value in the lessons and enjoyed what they were learning. One mother stated, *“I have seen that the things they teach are helpful to me and that I will even gain knowledge...Like how to exclusively breastfeed the baby and what to feed the baby...I have liked that we learn a lot of things that I did not know...”* (Mother with a child aged 0–5 months, Mongu).

Mothers spontaneously reported participating in several topic discussions and activities during the meetings. They most commonly mentioned discussing lessons on hygiene, breastfeeding, and feeding practices specific to the ages of their children. One mother with a child aged 6–11 months mentioned seeing a difference in how well her child responded to the new foods that she learned to prepare from the meetings, and wanted to continue to learn new ways to make her child healthy and happy. All mothers also commonly reported participating in cooking demonstrations, group discussions, and the child feeding game and receiving products. In addition to the meetings, several mothers reported receiving a home visit from their CMA and/or nutrition promoter. During the visits, they most commonly discussed recommendations for feeding their children as well as hygienic practices, and used the feeding mat and growth reminder card.

Mothers also discussed involving others in the programme. They most commonly discussed the meetings and showed the child feeding mat and growth reminder card to their partners, and to their older children, friends, and family. Several mothers spoke to their partners and other women about the importance and examples of star foods, and brought their partners to the meeting with them at times. Mothers also reported that their partners would purchase, fish, hunt, and farm for star foods. A few also mentioned that their partners would refer to the child feeding mat and growth reminder card to make sure the mothers were giving their children star foods.

Fathers with Children Aged 0–23 Months

All male partners were aware of the group meetings and were able to describe a wide range of information taught in the group sessions. Male partners attended from 0 to 14 sessions, with one male reporting that he did not go to any sessions and most men reporting attending between three and eight sessions. Although men who attended more meetings were able to provide detail about the information taught, even men who attended a few sessions were able to share what they learnt about the group sessions from their female partners. Yet, there was an advantage in both partners attending the

meetings together, with one man stating that because they both attended, it was easier for them to remind each other about the things they were supposed to do to take care of their child.

Male partners described learning about the feeding practices of children under age 2; the importance of exclusive breastfeeding, with many fathers emphasizing that children under 6 months should not even be given water; hygienic practices such as keeping surroundings clean and washing hands; the importance of feeding children star foods and locally grown foods; feeding frequency; and taking the child to the doctor when he or she is ill. Several male partners discussed the relevance and applicability of this information to their own lives. One male partner from Samfya stated, *“I am helping because I make sure that all the foods they need to eat are available. Then I should help her (female partner) by making sure that she exclusively breastfeeds our baby who hasn’t reached 6 months yet. Then also I have to make sure that my wife also eats well...”*

Exposure to and Utilisation of the Communication Activities, Tools, and Products

Below, we discuss the utilisation of the communication products by the various groups targeted by the programme. The activities, products, and tools discussed in this section include: the NP guide, child feeding game, cooking demonstrations, child feeding mat, and growth reminder card. We discuss the responses from all mothers together, and highlight any differences among mothers with children from various age groups.

Nutrition Promoter Guide

Nutrition Promoters

All the NPs reported using the NP guide to help them prepare for their group meetings, and the majority also reported referring to or reading from their guides during the meetings, indicating that it was a very useful and valuable tool for them. The NPs reported using the guide for all their group sessions; thus, most had been able to go through the majority, if not all, of the sessions with their groups. Overall, all NPs felt that the NP guide was easy to understand and use and made it easy to plan and prepare for the meetings.

CSO Staff

Overall, CSO staff felt that the NP guide was very useful and that it provided a nice step-by-step approach, guiding the NPs on what to do for the group meetings. One staff member noted that he felt that the summarizing section for each of the sessions was the most useful, as it serves as a recap by asking participants what they learnt during the session.

Bushes That Grow Radio Programme

Nutrition Promoters

The NPs in Samfya district reported receiving the English version of the *Bushes That Grow* radio programme on a flash drive and listening to the programme with their groups. None of the NPs in Mongu district received the flash drive of the programme, and only one listened to the show. All NPs in Samfya noted that despite receiving the radio programme, it was a challenge to listen to the radio show episodes in the groups because it was in English, and most women were not able to follow along.

CSO Staff

The radio programme was only reported to be used in the group meetings in Samfya. It was used to reinforce the topics discussed during the group meetings. It was perceived to be a useful part of the programme in Samfya, since it “tackles all aspects of the nutrition programme.”

Mothers With Children Aged 0 to 23 Months

The number of times that mothers reported hearing the radio programme varied by group from not hearing the programme at all to hearing it ten times. Some mothers stated that although they heard the programme they could not understand it because it was in English. Further, although mothers were encouraged to listen to the show, this was not always possible, as one mother stated, “*We were told that there is a programme that we are supposed to be listening to on the radio but we can’t because we do not have a radio*” (Mother with a child aged 0–5 Months, Mongu). Most mothers heard the programme during their group meetings, while a couple of mothers heard it at home or at a village gathering place. A few of the mothers also mentioned listening to the programme with their partners and in-laws. The majority of mothers who reported listening to the programme recalled some of the characters, but only one could specifically name any of the characters (Sister Loveness). Most of the mothers could also remember some of the topics discussed in the programme, and were most surprised by the lessons on types of star foods, how to feed children, exclusive breastfeeding until 6 months, washing hands before breastfeeding, need for tip taps outside of toilets, and the importance of taking the child to the hospital when he or she is sick.

Fathers with Children Aged 0 to 23 Months

Five of the eight fathers interviewed reported listening to the radio show. The number of times they heard the show varied greatly, with one man stating that he heard all 13 episodes, another stating that he heard it only once, two stating they heard it between three and four times, and one stating that he heard it about seven times. The man who listened to all episodes received a flash drive with all the episodes, the others heard it during the group sessions, and one man reported hearing it on the radio.

Child Feeding Game

Nutrition Promoters

Every NP reported using the child feeding game at least once during the group sessions. To play the game, the NPs would divide the women into groups. The way the game was played varied by NP⁶. For example, some would ask the women to demonstrate how they would feed their specific child based on the child’s age; while others would divide the women into groups based on the child age then ask them to demonstrate how to feed a child that fell within their assigned group. Furthermore, none of the NPs referred to the cards that go along with the board to the game. Of note, many NPs did highlight that the mothers referenced the other products, particularly the growth reminder card, to help them play the game.

With regards to the changes in knowledge and behaviours of women that were noted by the NPs, the majority stated that the game helped women to know how often (timing during the day), and what to feed their children according to their age: “*They know how much and what to feed their baby and they have followed the instructions that the baby 0–6 months should not be given any foods...the baby should be breastfed*” (NP Kaande).

⁶ NPs were encouraged to make their own modifications.

CSO Staff

Similar to the NPs, the CSO staff members liked the feeding game and felt it was useful and practical, since it helped mothers to learn what foods and when to give a child based on his or her age. One staff member did note that he felt the game was a bit challenging at first, but realized it was helpful in understanding what meals to provide throughout the day for a child of a specific age. As the NPs also reported, the game was used during the group meetings, with the women being divided into groups to play the game.

Overall, the CSO staff members felt the game was useful because it allowed the women to practise what to feed their children. One staff member noted that the game cards were very useful, as they contain foods that the women are familiar with and are easy to relate to. They felt that the game allowed women to better understand and put into practice what star foods to feed their children in order to provide them with a nutritious meal.

Mothers with Children Aged 0-23 Months

Mothers reported playing the games from zero to seven times. Although most mothers played the game not all who played the game could describe what the different sizes of the bowls meant and what the Os meant, with more women having difficulty describing the Os. The majority described playing the game during group meetings, in small groups, by planning a daily menu for an assigned specific age group of children. The majority of mothers seemed to understand the goal of the child feeding game, which is to allow participants to learn how to plan a daily menu for children that focuses on getting more star foods into the child's meals.: *"This game taught me a lot, like this paw-paw, it has a single star and when I give it to my baby she will get vitamins from it. I didn't know all this. And these caterpillars...I did not know that they can make my child strong,"* (Mother of a child aged 6–11 months, Kaande). Only one mother reported playing the game at home, and two mothers, mentioned sharing their menus with the large group and getting feedback from the nutrition promoter.

Cooking Demonstration

Nutrition Promoters

All of the NPs reported conducting at least one cooking demonstration, with just over half reporting that they held two demonstrations. In some cases, the NPs reported that the CSOs supported the cooking demonstrations by bringing some of the necessary food supplies; but most of the supplies came from the mothers, who were asked to bring what they could contribute.

For most NPs, their main role in the cooking demonstrations were to instruct the women on how to prepare the recipes and supervise them as they cooked, thus allowing the activity to be very hands-on and practical. In a few instances, the NPs also took part in cooking alongside the mothers. A variety of recipes were made in the cooking demonstrations, and in all cases, they made more than one recipe.

Similar to the group meetings, attendance at the cooking demonstrations varied across the different NP groups. More than half the NPs reported that fathers and children attended the cooking demonstrations. Additionally, many of the demonstrations were also attended by the CSO staff. In Samfya district, staff from the Ministry of Agriculture also participated in the demonstrations.

The main success noted was that women learned different methods of cooking locally available foods. The main challenge noted was acquiring the necessary foods, since the women were not able to bring everything that was required. One NP noted that *"for them to come with things to cook during the demonstration, it was a big fight with us sometimes...[they] even said if we [NPs] had something we*

should have just bought and helped them” (NP from Ndiki). This applied in particular to the “two-star” foods, which are animal source foods like eggs or meat. One NP noted that it was also a challenge to have the recipes in English, thus requiring translation into the local language. All the NPs noted that the women were “*practising what they learned*” (NP Kaande) from the cooking demonstrations. .

Mothers with Children Aged 0 to 23 Months

Reports from the women align with those from the NPs. The majority of mothers reported participating in the cooking demonstrations during the meetings. Across all groups, mothers attended an average of two demonstrations, with reports ranging from one to six times. Mothers mentioned cooking a wide array of foods, during the demonstrations, including kalembula (sweet potato leaves) with eggs, pumpkin with eggs, and nshima (maize flour/corn meal cooked with water) with soya milk. Mothers discussed how they learnt how to enrich porridge with other nutritious foods, such as groundnuts, kapenta (small dried fish/sardines), and caterpillars. The mothers seemed to enjoy many of the foods, including ones they never tasted (i.e., porridge with caterpillar). Because mothers of children aged 0–5 months had not yet started feeding their children, they had not prepared any of the recipes for their youngest child, yet those who did have older children mentioned preparing foods for those children. Mothers with children over six months stated that their children had tried most of the foods, with the most common being porridge with groundnuts. “*I gave my baby the same porridge with pounded groundnuts. He finished everything I had put in his bowl*” (Mother of child aged 12–23 months, Kaande).

Child Feeding Mat

Nutrition Promoters

All NPs received the child feeding mat and distributed it to the mothers during a group session. The NPs used the mat to explain how to use it when feeding a baby (for placing the food for the child on it), as well as to review what foods to feed the children. It was evident that the NPs had a good understanding of the content on the mat and which foods qualified as one- and two-star foods. While all NPs had their own way of explaining what “make your child a star” means, all clearly understood that it referred to the link between having a healthy child and feeding your child nutritious foods.

“For a child to be a star they have to be eating the right foods.” (NP Musaila)

“Making your child healthy by feeding them star foods.” (NP Chinwe)

The main changes reported by the NPs in women’s knowledge and behaviours due to the child feeding mat were around the star foods—that mothers are able to identify one- and two-star foods and are making an effort to give their children these foods.

CSO Staff

Overall, the CSO staff also felt that the child feeding mat was a useful tool, helping mothers to know the right foods to give children and how to combine star foods. They also felt it was a practical and easy tool for mothers to use, particularly given that it is pictorial. CSO staff confirmed that the NPs used the mat as a teaching aid for the mothers. It was not reported to be used in any other setting other than the group sessions and by the women at home. However, some of the foods that the child feeding mat depicted are not available locally, thus the staff members did not feel those pictures were useful⁷.

⁷ Pictures were selected to represent foods across Zambia so it could be used country-wide. The criteria for foods to be classified as one or two star foods was more strict than including all vegetables and all animal source foods. For instance, although cabbage is a vegetable, it was not given 1 star because it is not nutrient dense.

Similar to the NPs, all the CSO staff members had a good understanding of what the phrase “make your child a star” means. Although all expressed it a bit differently, it was evident that they understood the phrase was linked to providing nutritious foods for children.

CSO staff members felt that the mat has helped the women know what to feed their children. Specifically, the women now know how to combine star foods and make use of locally available foods, and they are no longer repeatedly giving the same foods to the children. A few also mentioned that hand-washing practices have also improved.

Mothers with Children Aged 0 to 23 Months

The majority of mothers reported using the child feeding mat as a placemat for their child’s food for every meal, and cleaning it after each use. A few of the mothers also mentioned using the mat as a reminder of the types, and frequency of feeding star foods to their children. For mothers with children under 6 months, although most had heard about and owned the mat, they had not yet used it because their child was not yet eating food. Two mothers had a misunderstanding of how to use the mat, indicating that one was to place their child and not the feeding bowl or plate on the mat.

Fathers with Children Aged 0 to 23 Months

All fathers reported seeing the mat and were able to describe its purpose, yet there was some variation in the description of how to use the mat, with some fathers stating that one was to place the child, rather than the bowl, on the mat. One man from Chinweshiba stated, *“this mat is so that a woman should have a nice clean place to feed the child...this way she can prevent the child from eating dirt from the floor whilst eating”*. The majority of men stated that they would use the mat as often as possible, usually every time they were feeding their child. Men also mentioned that the mat acts a guide for them to know what to feed the child.

Growth Reminder Card

Nutrition Promoters

All NPs reported receiving the growth reminder cards and distributing them to the women in their groups. NPs explained the information and pictures presented on the cards to the women during the group sessions. All felt the card was very useful for explaining to women how to feed their children according to specific age groups, including breastfeeding. It was noted here and throughout the interviews with NPs, however, that including two-star foods in children’s meals was more challenging for mothers, compared to the one-star foods, due to availability and cost.

With regards to the changes that NPs noticed in mothers due to the growth reminder card, almost all NPs reported changes in breastfeeding knowledge and behaviours. These included changes in how women position the baby during breastfeeding, changing of schedules to be able to breastfeed, use of both breasts when breastfeeding, and knowing how many times to breastfeed each day. The other main change reported related to the women’s complementary feeding practices. Changes to feeding practices included adding in new foods not previously given to the children, making sure the child eats at the right times and eats the right foods, and including a variety of star foods in the meals prepared for the children.

CSO Staff

Overall, just as with the NPs, the CSO staff felt the growth reminder card was a useful product, that it contained a lot of useful information for the mothers, and served as a good reminder to mothers of what foods and when and how many times per day to feed their children. One staff member noted that

“it’s good in the sense that it has those graduations where these people are able to see, okay, my baby is at this stage,” thus indicating that the way it is laid out by the different age groups is very helpful. The card was used by NPs during their orientation to the programme and used to teach the women what foods, how much, how often and how to feed their children. Most CSO staff members reported that the CMAs had seen the growth reminder card, and in some cases, were using the cards during the home visits with the mothers. Similarly, some reported that the health facilities had received the cards and were using them.

All CSO staff members confirmed that the mothers used and referenced the growth reminder cards during group meetings. The most useful parts of the card were perceived to be the information on how to feed the child by age group, the information on hygiene, and how to take care of a sick child. Only one CSO staff member noted that the information on measurements of how much to feed the children was not very useful, since they did not have the feeding bowls.

Overall, the CSO staff members felt that the growth reminder card had influenced improvements in women’s hygiene practices, specifically hand-washing and creation of safe play spaces. Additionally, a few noted improvements in exclusive breastfeeding and overall feeding practices of children.

Mothers with Children Aged 0 to 23 Months

Most mothers reported using the growth reminder card as a reminder on how to care for their children—specifically for feeding guidelines, breastfeeding techniques, and recommendations on clinical visits. One mother mentioned specifically looking at the card for warning signs for sick children. Most of the mothers indicated reviewing the card on a regular basis, while others rarely looked at it. Although two mothers with children under 6 months stated that they did not yet start using the card because their child was not yet eating food, others did report using it to reference information related to breastfeeding and health care. One mother found utility stated, *“It reminds me that a baby of 0–6 months is not supposed to be fed with solid foods but just breastfed and no water as well, the baby is also supposed to be fed on both breasts; I breast feed my baby 8–12 times day and night”* (Mother of child aged 0–5 months, Ndiiki).

The majority of mothers showed a firm understanding of how to locate information for a 15 month old child when asked to do so. Several mothers discussed the details of feeding guidelines for their children. Most of the mothers also showed the card to others, most commonly their partners, friends, and family members. One mother revealed that she could not read the card, and would have her partner explain it to her.

The majority of mothers also discussed how the NPs explained the importance of the card and how to read it for each age range during the meetings. One mother mentioned that NPs would ask meeting attendees questions about the information on the card to assess their understanding. Some mothers also explained how their NPs and/or CMAs would walk through the sections on feeding and clinical visits during their home visits.

Fathers with Children Aged 0–23 Months

Most fathers reported seeing the growth reminder card and discussed the information on the card with their partners, other family members, and neighbours. Although most fathers reported seeing the card, the number of times they reviewed the card ranged from just a few times to several times a week. When asked how often he reviewed the card, one man from Kaande stated, *“Many times because we want to make sure that the baby is fed accordingly; from the time we received it we have been reviewing*

it mostly with my wife". Most fathers stated that they reviewed the card with their female partners and thought that the card was important for not only their partners but also themselves.

Changes in Knowledge and Practises (Attributed to the Entire Programme)

The majority of individuals who participated in various components of the NCP reported both changes in knowledge and practices because of their participation. Most of the changes discussed fall under the categories of exclusive breastfeeding, infant and young child feeding practices, and hygiene and health.

Excusive Breastfeeding

Exclusive breastfeeding and its importance was central to the nutrition program and included in most products. Several participants mentioned that they were surprised to learn that a baby under 6 months should be given only breast milk and that he or she should not even be given water. In discussing changes she made due to messages from the products, one mother with a 4-month-old child stated, *"Giving the baby water and other foods, I used to do that, but after hearing on the radio show the information, I stopped giving my baby water and other foods because it's not healthy and she [the radio show host Sister Loveness] explained that breast milk has everything the baby needs...[I] make sure the baby gets enough breast milk"* (Mother of child aged 0–5 months, Kaande). Along these lines, mothers discussed the importance of paying attention to the way that they breastfed. When asked what she had done differently as a result of the programme, one mother stated, *"I exclusively breastfeed, unlike my first pregnancy, I make sure I pay attention to breastfeeding the baby. Before I used to just sling the child over my shoulder to breastfeed"* (Mother of child aged 0–5 months, Musaila). Some mothers also discussed the importance of using both breasts when they are feeding.

Both men and women were also able to discuss the amount of times they were to feed children under 6 months and stated steps that they were making to increase new-born feeding frequency. Mothers with children under 6 months often stated that their babies should be fed 8–12 times and should only be given breast milk. One father from Chinweshiba stated, *"I make sure that firstly she [mother of child] does not leave the baby when she is travelling or leave the house, this is so that the child doesn't miss any breast feeds, she needs to be fed 8–12 times like we were taught"*.

In addition to the importance of exclusively breastfeeding their children, participants with children under 6 months also discussed learning the importance of having adequate nutrition in order to produce enough milk for their children. Some mothers also discussed specific foods that would help them produce more milk.

Infant and Young Child Feeding

The majority of participants stated that they gained knowledge and were able to apply what they learnt to change the way they feed their children. Participants discussed learning not only what types of foods to give their children, but also how to prepare new foods they had never prepared or thought had much nutritional value (e.g., caterpillar, sweet potato with egg, pumpkin with sour milk and mouse). Other lessons included examples of foods and cooking techniques that would better support the growth of their children, such as thickening and enriching porridge, mashing food for younger children, and cleaning the cooking and eating environment. *"I learnt how to mix foods. Let's say I have two eggs and we are six at home, these eggs will not be enough, but I can mix the eggs with the sweet potato leaves and everyone at home will be able to have the three stars in their meal"* (Mother of child aged 12–23 months, Musaila).

Both mothers and fathers were able to discuss the knowledge they gained on feeding practices. For example, one father from Chinweshiba stated, *"So this part says that I should make my baby a star by*

giving her star foods that make her healthy. So for example, when my baby starts to eat food we will use this to plan meals for her on a daily basis. Like in the morning we give her porridge with groundnuts, then at 10 hours she will have an orange whilst waiting for lunch. Then at lunch she will have nshima with vegetable and any two-star relish. Then at 15 hours she will have a banana or a slice of pawpaw, finally at supper time she will have say nshima and sweet potatoes leaves and kapenta, which has two stars. This is how we are feeding our child and using this mat”.

Increasing the diversity of the foods that their children eat and utilizing locally available foods was also something that participants stated they did as a result of the programme. For example, one man from Ndiki stated, *“In the past we did not know that we could feed our children on locally produced foods. We thought that getting food from Shoprite was the best or other things such as infant formula, but now we know that we have the right foods where we live. Examples are vegetables like kalembula”.*

Participants stated that they referred to tools such as the growth reminder card to know how to best feed their children. A father from Chinweshiba stated that *“people would just give fish or just pumpkin, but now they can give the pumpkin with rice, they can peel sweet potatoes and mix with groundnuts and porridge with groundnuts or eggs.”* Along these lines, mothers commonly mentioned carefully selecting and providing star foods to their children on a daily basis. They also mentioned creating a daily menu and feeding schedule, mashing foods for younger children, using fruits from their garden, teaching their children’s caregivers how to properly feed their child, and involving their partner in providing star foods. *“[I learned] how to make a feeding time table and also how to first soak rice, pound it, and cook and give to baby”* (Mother of child 6–11 months, Mongu). Other lessons included the importance of snacks, required number and timing of meals and snacks, how to mix and cook different types of healthy foods, learning that the types and quantities of food change as the child ages, and the need for a balanced diet for healthy growth.

Mothers with children aged 6–23 months mentioned increasing the number of meals and snacks and providing foods initially thought not to have nutritional value (i.e., bananas and oranges). Additionally, a few mentioned the need to continue breastfeeding, up to five times a day, and providing their children three meals and two snacks a day.

All of the mothers with children over 6 months reported first giving their children porridge (or mashed banana or avocado) at 6 or 7 months. A few of the mothers explained how they now prepare their child’s porridge, most commonly a thick texture with groundnuts as well as salt, sugar, and milk. The majority of mothers with children over 6 months also reported providing at least one star food for their child the day of and prior to the day of the interview. On the day before, they mentioned vegetables, fish, cabbage, milk, banana, groundnuts, kalembula, eggs, and peas. The day of the interview, they mentioned bananas, eggs, beans, mabisi (soured milk), kalembula, pumpkin, paw-paw, orange, and groundnuts. Mothers reported activities such as the cooking demonstration were useful in helping to change their feeding and nutrition practices. They indicated trying several different recipes, including foods they never tried before (e.g., caterpillar, mouse, pumpkin with egg and soya milk). Other recipes they tried included rice with groundnuts, rape, , sweet potato leaves with eggs, and kalembula and eggs.

Although feeding children is primarily thought of as the responsibility of the mother, one father stated that the programme was also helpful in teaching him how to feed his child: *“It is good to have ideas on how to feed children, the kinds of food to feed them and when to feed them. There are a lot of things that can happen, like my wife getting sick or moves out of the house, how can I take care of the children if I do not know how to care for them. You see, we both need it”* (Father, Kaande). Fathers also mentioned other roles they can play in child feeding practices, for example one man stated: *“Nowadays*

we don't buy chicken, we rear our own chicks so we can have a constant supply. Then also, we can have eggs instead of buying them because they are very expensive, so I told her it's better we just rear our own chickens. I also now rear goats at home so that my children can have a source of meat" (Father, Chinweshiba).

Health & Hygiene

Participants discussed improvements in health and hygienic practices because of the programme. Several mothers mentioned improving their hygienic practices, such as the frequency of washing their hands and the cleanliness of their surroundings. Some mothers specifically mentioned that they now wash their hands before preparing food and breastfeeding. Other participants mentioned cleaning the area in which they feed their child and using products such as the feeding mat to provide a clean eating space.

In the discussion of diarrhoea, mothers varied in their beliefs. Most mothers believed diarrhoea was caused by unclean water and poorly prepared foods, while others cited improper dressing of children, illness, teething, sweet foods, drinking water earlier than 6 months, and cold food. The majority of mothers also believed that the prevention of diarrhoea should include boiling water and cooking food properly, while others mentioned dressing children warmer, washing hands before preparing food, providing a clean eating area, covering foods, warming up food, and waiting until 6 months to give children water.

Participants in the programme recognized the relationship between food and health. The majority of mothers appeared to understand the importance of star foods in providing energy and nutrients needed in order for their children to grow well and be healthy. Women described star foods as having various purposes, including preventing illness, promoting growth, providing vitamins, and providing protein for growing strong. One mother stated that *"the foods on the mat are all local foods that are found everywhere so we should use them...they are very nutritious but the ones with double stars like eggs are more nutritious than the ones with single stars"* (Mother of child aged 0–5 months, Ndiki). Across all groups, the majority of mothers understood the concept behind the phrase "make your child a star" as building a diet of healthy foods to help children to be healthy and strong. *"Make your child a star means that your child should shine like a star health wise, and been in a clean environment and have a balanced diet"* (Mother of child aged 12–23 months, Chinweshiba). One father stated, *"The difference is that we never used to give the child as many vegetables, thinking the child will develop stomach aches or that we never used to give the child pumpkin thinking it would have no nutritional value for her"* (Father, Chinweshiba).

Other health and hygiene practices that participants mentioned incorporating were installing a tippy tap near the toilets, cleaning children's play areas, and taking their children to the clinic if they are feverish or vomiting.

Perceived Effectiveness of Communications Programme on Nutrition and Hygiene-Related Attitudes and Practices

Implementers (NPs, CSO staff, DNs, and Health Centre Staff)

Similar to programme participants, programme implementers noted three areas of change. Knowledge and practices around breastfeeding, child feeding practices and hygiene-related practices.

The first main of reported changes was in women's knowledge and practices around breastfeeding. A few NPs noted that women now have a better understanding of how to position the baby when

breastfeeding; are now taking time away from other chores to breastfeed rather than breastfeeding at the same time; and now know how frequently they should be breastfeeding each day. CSO staff members confirm these findings.

The second area of reported changes was in how women were feeding their children. In particular, women have changed what foods are given to their children and how they are prepared. A few NPs noted that women are feeding new foods such as eggs, and making an effort to incorporate locally available one- and two-star foods into meals. Women are also cautious of what and how much food to give to the child based on his or her age. In addition to changes in the children's diets, a few programme implementers also noted that pregnant women are adding in other foods into their diets, including one- and two-star foods.

The last area of change noted was hygiene-related practices. The specific practices noted were improvements in hand-washing practices when changing the baby, before preparing food, and after going to the bathroom; in keeping the surroundings around homes clean and in general being more cautious of the environment that the child is in; and using the feeding mats. Furthermore, many mothers made tippy taps to facilitate hand-washing at their homes.

Overall, the CSO staff members, DNs, and health centre staff felt that the different components of the programme really worked well together, particularly the cooking demonstrations, the group discussions, and the different products, since they were practical and engaged the women into participating. The health centre staff member from Samfya expressed that the integration of the different components was effective: *"I wouldn't say any one component was most effective, it is integrated and it works well that way."* It was also noted that the combination of providing information and then putting it into practice through the different activities was what made the programme work well. *"Under the nutrition component, the cooking demonstrations have worked very well and also the products, because when you combine practical and theory, people learn very well, so people are able to do what they have been learning"* (CSO Staff Member from Samfya). Furthermore, implementers felt that the inclusion of both pictures and text in the products really helped facilitate learning amongst illiterate participants.

Participants' and Implementers' Recommendations for Improving the Nutrition Communication Programme

Implementation

There were a few recommendations put forth by the NPs for how to improve the group meetings. These included providing the child feeding bowls and including home visits by CSO/CSH staff to help with encouraging women to attend meetings⁸.

A few NPs recommended increasing support from CSH, the CSO and the health centre. These include: providing a greater allowance; providing additional material support in the form of T-shirts, to identify them as NPs in their communities, as well as other supplies (e.g., stationery, pens, bags to carry supplies); and providing support with agricultural products (e.g., seeds) to ensure availability of some of the one- and two-star foods that are not currently available in the women's communities.

⁸ Shortly after the completion of data collection, the child feeding bowls were distributed.

Products

Nutrition Promoter Guide

The NPs and CSO staff members had a few recommendations for how the guide could be improved. These included 1) adding more recipes, particularly ones that incorporate different locally available vegetables, 2) having the NP guide laminated and translated into the local language, and 3) illustrating the radio show episodes within the guide, since they were not able to actually listen to the radio show within the groups. One CSO staff member also noted that while he did not think any improvements to the guide were necessary, he thought that the two-day training for NPs should be increased, as it was not sufficient to cover everything in the guide.

Bushes That Grow Radio Programme

The radio programme was the most noted product by the CSO staff that needed improvement, since outside of Samfya; it could not be used at the group meetings. Furthermore, since it was provided initially only in English in Samfya, it was difficult for the women to understand the information presented in the show. Thus, overall, it needed better integration into the programme.

Child Feeding Game

Overall, the NPs and CSO staff members liked the child feeding game; they felt that it was very practical and provided women with an opportunity to put into practice what they learned in the sessions. There were only a few recommendations put forth for improving the game, which included 1) making the board out of a harder material, 2) translating it into the local language, 3) adding in more local foods to the game so women can substitute the foods that are not available locally with those that are available, 4) providing the feeding bowl to improve understanding of the correct quantities of food to provide children, and 5) providing a bag to store and protect the game. Interestingly, one NP noted that her group needed to improve how they play the game by thinking of other foods that would qualify as star foods, aside from the foods that are listed on the products.

“It [the game] is okay the way it is. It is us parents who should improve. We should not think that it is only these foods that are here that we should give our children but even those that are not here but qualify to be in these food groups.” (NP Kaande)

Child Feeding Mat

Overall, the majority of participants and implementers felt that the feeding mat was fine as is. A few NPs and CSO staff members recommended using cardboard to improve its durability, translating it into the local language, and adding more foods that would qualify under the food star system to the mat.

Growth Reminder Card

The main recommendations put forth by the NPs and CSO staff members for the growth reminder card were laminating the card to improve its durability, translating the card into the local language, making the pictures larger so that they are easier to see and refer to during the group meetings, and including more information about the quantities of food to give to children.

Cooking Demonstrations

The suggested improvements for the cooking demonstrations included providing the supplies and food to the groups for the demonstrations; supporting the groups to grow the foods in their area, either through seeds for farming or animal production; and in general conducting more cooking demonstrations (beyond one or two) and providing the groups with more recipes that incorporate locally available foods.

Programme Delivery

CSO Staff

CSO staff recommended extending the implementation of the programme. A few noted the length of implementation was not sufficient. Other recommendations that were made included: 1) ensure that all products are in place before implementing the project, 2) improve frequency of supervision/monitoring visits to the communities involved in the programme, 3) extend the reach of the programme to other communities, 4) collaborate more with health centres since they should also be promoting nutrition with their clients, and 5) incorporate a kitchen-garden component into the programme.

District Nutritionists/Health Centre Staff

The DNs and health centre staff proposed several recommendations for how to improve the overall programme forth. The DNs suggested that home visits should be included as part of the programme, as they would allow for NPs to assess whether mothers are having any issues and whether they are correctly implementing what they have been taught. Another suggestion from one of the DNs was to bring on more stakeholders to help with the implementation of the programme, since the government is not able to manage and finance this programme on its own. The health centre recommended improving the capacity of the volunteers through refresher trainings or more comprehensive trainings; providing better material and financial support to volunteers to improve motivation; increasing the number of volunteers to improve the reach of the programme; and lastly, improving joint planning between the districts and partners by holding regular meetings (every three to six months).

Mothers and Fathers with Children 0-23 Months

Overall, respondents were satisfied with the programme and provided very few recommendations for improvement. The cooking demonstrations and growth reminder card were most popular. One mother recommended laminating the card. Mothers recommended translating the radio programme into the local language and including recipes in the shows. A few mothers also recommended changing the child feeding game to include a bigger and sturdier board and add more locally available and affordable foods.

Sustainability and Scalability

Nutrition Promoters

When NPs were asked what they felt was the most important aspect of the programme to continue, the responses varied. A few felt the entire programme should continue and did not highlight any specific activities or components. One NP noted that the products, specifically the feeding mat and growth reminder cards for the mothers, should be disseminated widely. A few NPs also mentioned the importance of providing support for either foods or farming in the communities, so that these one and two star foods are available to those in their communities. Overall, all voiced that it will be important for the programme to continue in their communities, as well as expand to other areas, as they felt it was beneficial for improving the nutrition within their communities and overall for the development of Zambia.

With regards to the sustainability of the programme, all NPs felt that some of the NPs in the programme would continue working due to their motivation to support their communities and because they see the benefits of the programme. One NP from Chinweshiba noted that she wants to continue *“because I want my family and community to develop.”* Interestingly, one NP noted that it is important to continue to sensitize the community and monitor that people are practising the behaviours, as otherwise people will not continue to practise what they have been taught. *“People have a tendency not only here, nearly*

everywhere, they have a tendency of stopping when they hear the project has ended, so we have seen that if we stop going back to this community, they will also stop doing what we have told them” (NP Ndiki).

CSO Staff

When asked if the programme will continue after CSH ends, all CSO staff members reported that they felt at least certain aspects will continue. Most felt that group meetings will continue, but likely with less frequency or only in some communities. The main reason for not continuing as they have was that likely not all NPs will continue to work, since they will no longer be receiving allowances. Interestingly, one CSO staff member noted that while the group meetings may not continue, at least some mothers will seek out the NPs for their guidance. They feel most mothers will continue to use the products such as the growth reminder card and the placemat.

A few CSOs mentioned that they have met with other government stakeholders to discuss how to continue the programme, stating that some government partners, for example the nutrition committee, will at least continue to check in on the targeted communities. One CSO mentioned that their intention is to seek out support from other stakeholders to be able to continue the programme. Additionally, a few CSO staff members noted that the use of the products, such as the growth reminder card and feeding mat and, even more importantly, the adopted new behaviours, such as exclusive breastfeeding, use of locally available foods, and hygiene practices will continue by the mothers in the communities.

Most CSO staff members felt that the district or health facilities will continue to use the products. One stated that if they are given the resources to do so, then they will continue to use them, while another mentioned that since the health centres have already been given the materials, then it is likely they will continue to make use of them.

All CSO staff members expressed that financial, material (e.g., products) and human resources will need to be provided in order to continue with certain aspects of the programme and to expand it to other areas. Most mentioned that it will be important for the district to see how they can allocate resources to the programme as well as reach out to garner additional support from other stakeholders, so resources can be pooled together. A few also mentioned technical resources, with one CSO staff member noting that he did not feel that CSH had built its technical capacity sufficiently in order to carry on the programme on their own. *“We would have loved for CSH to build capacity in the CSOs so that even if we are to source for funding elsewhere, we will have the capacity, technical capacity I mean, in terms of skills, issues of design the behaviour change interventions so that we can move on, other than us always being dependent.”*

Similar to the NPs, all CSO staff expressed support for expanding the programme to other parts of the districts or other areas of the country because they see the value and benefits of the programme with regards to the health and nutrition of children. A few expressed that the local government is also supportive of the expansion; however, they feel it would require additional stakeholder support and funding to be able to do so.

CSO staff put forth a few recommendations for developing plans to expand the programme under the 1st 1,000 MCDP. These included improve male involvement in the programme, giving sufficient time for the implementation of the programme, ensuring all products are in place before the programme starts, and providing more intensive training and monitoring of NPs. Lastly, because overall the programme needs more long-term thinking, another recommendation is developing a strategic plan that can receive greater stakeholder buy-in.

District Nutritionists/Health Centre Staff

All DNs and health centre staff felt the programme fit in well with other activities and initiatives in the district, such as growth monitoring and other ongoing maternal and child health activities. All DNs and health centre staff also expressed support for expanding the programme, noting that it has helped mothers know how to take care of their children, and since stunting and malnutrition are big problems in other communities, they felt the whole district should be covered. They noted that the programme has been included within the 1st 1,000 MCDP programme planning and budgeting, but were not able to provide specific details on this.

When asked what they thought would be needed to facilitate expansion of the programme, all gave varied responses. These responses included putting forward more personnel, transportation, and other resources; conducting further community sensitization to get more community leaders involved; and collaborating and planning with stakeholders to pool resources and ensure that needs are identified and met. One health centre staff member noted that the health facilities could help play an advocacy role by presenting the data from the communities to demonstrate the important need for the programme.

With regards to foreseen challenges with expanding the programme, all noted the same limited financial and human resources. They noted that there are not sufficient volunteers and that current volunteers already are often overwhelmed. Another challenge noted was around the sustainability of the programme, specifically that when programmes phase out, continuation of the programme sometimes fails due to issues of community ownership. In terms of recommendations for how best to expand the programme and address the issue of resource constraints, one recommendation was to bring in more stakeholders and develop a multi-sector approach to ensure that there are sufficient funds and resources. Furthermore, ensure that NGOs and other partners are working together with the government and are transparent about what they are able to commit to, and that a good information flow exists between all.

Conclusions and Recommendations

This review of the CSH Nutrition Communication Programme found that the programme had good participation by key stakeholders and intended beneficiaries and that the materials were well-received and utilized by those implementing and participating in the programme. The result was a programme that seemed to improve the knowledge and change perceptions of programme participants about child feeding and hygiene, with reported improvement in pro-nutrition behaviours. The programme was in high demand in all the communities in which it was implemented. There were suggestions by both implementers and participants on ways to strengthen the programme, and other needs have become apparent from the results of this review.

Therefore: Incorporation of the CSH Nutrition Communication Programme package into the national 1st 1,000 MCDP, with modifications based on the findings from this review, would boost programme participation and effectiveness. Furthermore, as the design and development costs of this package have already been incurred, streamlining the package using the lessons from this initial implementation permit the 1st 1,000 MCDP to easily adopt and rapidly scale up and deliver the additional programme package as part of ongoing efforts.

Programme Materials and Implementation

- Stakeholder engagement with the programme varied slightly across the districts, and undoubtedly by CSO, but generally, involvement at all levels and from both government and CSO personnel was

good. One measure of stakeholder engagement was the ability of all implementers to understand and discuss the programme's purpose, goals, and activities. This level of engagement and understanding is due to sound training, written guidance, and their participation in the planning and implementation of the programme.

Therefore: As the program is rolled out, the same attention to stakeholder involvement in planning and adapting the program will be required to achieve the high level of buy-in and ownership witnessed during this initial implementation period.

- The main variations in programme implementation among CSOs and NPs were in the following:
 - The active engagement of the broader stakeholder group, including community leaders and government counterparts;
 - Community group meeting participant make-up and frequency (e.g., some groups consisted of both genders, while others included only women; some groups held meetings weekly, while others held meetings every other week);
 - The frequency of supportive supervision and monitoring visits provided to the NPs (the majority of NPs received supportive supervision and monitoring visits by CSO staff and other NPs, and the forms for these visits were used, but the frequency of visits varied greatly and the use of the forms was inconsistent); and
 - The amount of home visiting to reinforce nutrition-related practices.

Therefore: The areas highlighted above merit additional discussion and guidance as programme materials are modified for national expansion. More options should be laid out to guide the local adaptation process, and time should be allotted in the orientation and training to allow for discussion of local solutions. The NP guide should be expanded to emphasize the importance of these four programme practices: broad stakeholder engagement, inclusion in peer group meetings, periodic supportive supervision and monitoring, and home visitation. Successful experiences with supportive supervision should be shared, and systems should be aligned to make this important practice easy. Distance communications and mobile technologies should be explored to keep NPs and other implementers refreshed and up-to-date on the programme.

- Programme implementers, especially the NPs, found their training and the programme activities and materials useful, well-integrated, easy to understand and very practical (hands-on). Implementers reported that the participants also had this same view of the materials and activities.
 - The NP guide was praised as a useful tool, helping the NPs to prepare for the meetings as well as guiding them while they were conducting the group meetings.
 - Demonstrations, both cooking and hand washing/tippy-taps, were universally seen as useful and were favoured by participants.
 - The “growth reminder” helped implementers explain feeding and other requirements based on the age of the child.
- Implementers had the following suggestions for improving the programme package:
 - Translate the products into the local language. This was mentioned especially in relation to the radio programme/virtual facilitation support from the *Bushes That Grow* radio programme serial.
 - Ensure that copies of *Bushes That Grow* are widely distributed.
 - Add more pictures, recipes, and explanations of the radio show to the NP guide.
 - Laminate some of the products for improved durability, such as the growth reminder card, and consider using a solid playing surface for the game.
 - Add locally available, qualifying foods to the list of star foods.

- Expand the explanation of how to play the menu game, and add additional instructions reflecting options for how to play the game.
- Make sure child feeding bowls are available.

Therefore: Although CSH has already started translating programme materials into Bemba and Lozi as the programme expands across the 1st 1,000 MCDP priority districts, it will be important to pay attention to local language needs. Local adaptation must also ensure that important one- and two-star foods that might have very specific geographic availability are included in the materials. And, a final review of all materials should be made in light of the following findings: options for playing the menu game must be reviewed; the growth reminder materials need to emphasize the age categories; and additional instruction would be useful in terms of combining common foods with star foods into practical “meals” for young children.

Programme Effectiveness

- Programme implementers reported a good understanding of the major concepts of the programme. They also reported that they saw an improvement in women’s and men’s understandings and practices in three main areas: hygiene, breastfeeding, and complementary feeding practices.
 - Hygiene: Implementers reported seeing improvements in hand-washing practices and more tippy taps, reported use of the child feeding mat and creation of safe play spaces (larger mats for young children), and, generally, improvements in the overall cleanliness of the surrounding areas of the homes.
 - Breastfeeding: Implementers reported improvements in exclusive breastfeeding and decreases in the use of other liquids, more proper positioning, and longer breastfeeding periods.
 - Complementary feeding: Implementers reported that mothers were trying to mix foods and to feed their children the two-star animal-source foods, but they also noted that this was a major challenge for many families.

Therefore: The pride that the programme implementers took in discussing the important shifts in the attitudes and practices of programme participants should be captured in a way that can be shared and that will motivate broader community buy-in to programme participation and expansion. Ideas for capturing programme results at the community level should be added to the programme implementation guidelines. One suggestion is to expand the formats used in the Malaria Champion Community programme; adding simple graphic representation of the percentage of people or families implementing certain priority practices over time. The results could be discussed quarterly by the community to evaluate progress and solve problems related to the broader acceptance or practice of key behaviours.

- Mothers and fathers demonstrated a firm understanding of the key concepts from the Nutrition Communication Programme. They reported many changes in their behaviours in the areas of hygiene, breastfeeding, and complementary feeding. Common new practices included planning of meals and snacks to include recommended star foods, washing hands frequently before preparing food, and increasing the frequency of child feedings during the day. Fathers, both those who participated in group meetings and those who learned from their partners, were supportive of the new practices, interested in learning new nutritional concepts, and dedicated to providing star foods to their children.

Therefore: The importance of reaching both men and women caregivers is critical. What we did not learn was whether sessions that are adapted particularly for men might be more effective in terms of

their actions to improve young child feeding. However, it was clear that providing information and practical suggestions to men regarding good practices is important to seeing the implementation of these practices in the household. The fact that every peer group session had a practical activity designed to help facilitate household-level practice was particularly important to the acceptance of the practices and to the trial of new behaviours at home. This practical element of the group work should be strengthened.

Programme Sustainability and Scalability

- Programme implementers expressed support for continuing the programme in their area and said that they thought that NPs would continue to conduct many of the activities that they had started, in spite of the lack of programme resources. Most implementers expressed regret about the short implementation period with support from CSH. Implementers also said that they supported expanding the programme to different areas of their district and to other areas in the country because of the improvement in practices that they saw in the programme communities. The main challenge that implementers expressed regarding the continuation and expansion of the programme was with resources—financial, technical, material, and human.

Therefore: Incorporating this Nutrition Communication Programme under the 1st 1,000 MCDP will help with the technical support required. Ensuring human, material, and financial support may be challenging, but with most of the design and development costs already incurred and a specific programme model available that can be adapted locally, the implementation costs should be within local implementation budgets if the multiple sources of donor resources are combined and put towards supporting the spread of the 1st 1,000 MCDP.

APPENDIX I: IDI GUIDE FOR MOTHERS OF CHILDREN AGED 0–23 MONTHS

INTRODUCTION: Mothers with Children 0–23 Months

Good morning/afternoon. My name is _____ and I work for the Communications Support for Health (CSH) programme based in Lusaka. I would like to talk with you about a 1,000 most critical days program that a nutrition program that been running in your community led by _____(CSO).

If asked: CSH is a USAID-funded programme that has been working in your community, specifically as a nutrition program focusing on the 1,000 most critical days. This is part of a larger government-led nutrition effort. CSH is comprised of staff from ICF International, Chemonics International and the Manoff Group.

Today, I would like to discuss your experiences with this program that has been going on to help families feed and care for mothers and young children better. We want to learn more about your experience in this program to help us better understand how to improve the nutrition of women and their children in other parts of Zambia.

I want to let you know that I'm not a medical professional, and I am not an expert on what we are going to discuss today. I am a trained interviewer. I want to hear your honest opinions about the topics we will discuss today. There is no right or wrong answer to the questions I'm going to ask. Please just relax and enjoy the discussion.

Please keep in mind that your participation in this discussion is completely voluntary. If for any reason you wish to leave the discussion, you may do so at any time.

Interview Guidelines

Before we begin, I'd like to review some important points about today's discussion. I want to make sure you know about how it will work and your rights.

- You have been invited here to share your views, experiences and opinions.
- Your answers will be confidential, so feel free to say exactly what is on your mind. Your name and your baby's name will not be used in any reporting but I'd like to use your names during the interview if that is OK.
- There are no right or wrong answers.
- This session will be audio taped. This is so we can capture everything that is being said today for the report.
- We have a notetaker here with us. His/her name is _____. He/she is here to make sure that we capture all of your comments in the event that something goes wrong with the recording. He/she has signed a confidentiality agreement, and won't be sharing your comments with anyone. He/she will not be taking part in the conversation, so we can just pretend he's/she's not there.
- You may excuse yourself from the conversation at any time for any reason.

Do you have any questions?

Other project staff from CSH may also listen. Is it okay to continue with the discussion?

Lastly, before we start please turn off the ringer on your cell phone.

ICE BREAKER:

First, please introduce yourself:

What is your name?

How old are you?

What is your marital status?

How many children do you have?

What is the age of your youngest child? What is his or her name? We will refer to _____ during the interview.

Section I: Assessing Participation/Exposure

Interviewer Text: I would like to talk about your participation in the First 1,000 Day nutrition program that (CSO) has been carrying out.

1. How many meetings did you attend?
2. Where were the meetings held?
3. When were they held?
4. What is the name of the NP running the meetings
5. How did you learn about the nutrition group meetings? *Mark with an 'X' all that are mentioned by the respondent:*

___ Through the health centre during a Antenatal Care (ANC) visit?

___ During a home visit with the community malaria agent (as part of the Champion Communities programme)?

___ Nutrition promoter?

___ From friends or other community members?

___ Others (please specify) _____

6. What motivated you to go to the group meetings initially?
 - a. What motivated you to continue going to the meetings?
 - i. What have you liked about the meetings?
7. What topics did you learn about at the group meetings? (be specific as possible) **Participants should provide spontaneous responses, do NOT read the list of categories below. Mark with an 'X' all that are mentioned by respondent**

Introduction to 1,000 most critical days	Introducing food—6 to 9 months
Hygiene, Hand washing and safe play and feeding	Feeding babies from 9 to 12 months

spaces	
Nutrition during pregnancy	Feeding young children from 12 to 24 months
Initiating breastfeeding immediately after birth and exclusively	Feeding of sick/recovering children
Breastfeeding	How HIV positive mothers should feed their babies
Locally available food /STAR Foods	Child Feeding Game
Other: _____	

8. What did you do in the group sessions? **Participants should provide spontaneous responses, do NOT read the list of categories below. Mark with an 'X' all that are mentioned by respondent**

Cooking Demonstrations	Discuss the growth reminder card
Listen to the Radio show	Receive products
Play the child feeding game	Discuss the child feeding mat
Group discussions	Other _____

9. Did you receive any home visits from the community malaria agent (CMA) that included discussion of child feeding?

Yes No

If YES, probe:

- What did you discuss about nutrition with the community malaria agent -CMA during these home visits?
- Did they use any materials about nutrition when talking to you? Which ones?

10. Did you listen to radio programme called Bushes that Grow at home or elsewhere? The programme discussed nutrition and hygiene.

Yes No

If YES, probe:

- a. Who were the main characters?
- b. How many times did you listen to the programme?
- c. Where did you hear the programme? *Mark with an 'X' all that are mentioned by respondent:*
 home group meetings
- d. If at home, did your male partner or family members listen to the programme with you?
- e. Was there anything surprising in the show? What?
- f. Was there something you did not know before? What?
- g. Did you try anything differently based on what you heard on the radio? What?

h. What suggestions do you have for improving the radio programme?

Child Feeding Game

11. During any of the meetings, did the group play the child feeding game, a game in which in you planned what you would feed a child each day?

[Show a copy of the game to the respondent.]

Yes **No**

If YES, probe:

- a. How many times did you play the game in the group?
 - i. What was point or the goal of the game?
 - ii. Can you tell me what the different bowls mean on the game board?
 - iii. What do the Os and stars mean on the cards?
- b. What did you learn from playing the game?
- c. Can you tell me about how you played the game? Did you play it home? Was there anything you changed when you played it?
- d. What suggestions do you have for improving how the game is used in the group meetings? Do the components of the game card and board make sense? Is there anything you would change?
- e. Did you try anything at home after the discussions about the game? What?

Cooking Demonstration

12. Did you ever participate in a group meeting where there was a **cooking demonstration**?

Yes **No**

If YES, probe:

- a. How many cooking demonstrations?
- b. What recipes did the group cook?
- c. How did you participate? (probe: cooking a dish, preparing any foods before cooking, other)
- d. Did you like the foods? Which ones?
- e. Did your child try any of the foods? Which ones?
- f. Did you learn anything from the demonstrations? What?
- g. Have you tried any of the new recipes since the demonstrations?

- i. If yes, which ones.
- ii. If no, why not.

Child Feeding Mat

13. Did you receive the child feeding mat used for feeding your children to take home with you?

[Show the respondent a copy of the child feeding mat.]

Yes No

If YES, probe:

- a. What is the mat for?
 - i. Are you using it at meal time for your child?
 - ii. How often do you use it?
 - iii. Do you clean it? How often?
- b. Can you explain the pictures on the mat?
- c. What does “make your child a STAR” mean?
- d. Have you done anything differently because of the reminders on the mat? What?
- e. What are your suggestions for improving the child feeding mat?

Growth Reminder Card

14. Did you receive the growth reminder card to take home?

[Show the participant the reminder card when asking the following questions.]

Yes No

If YES, probe:

- a. How have you used the card at home as a reminder of how to feed and care for your child?
 - i. How often do you look at it?
 - ii. Have you shown it to any other family members? Who?
- b. Was it used in any group meetings by the NP? How?
- c. Was it used by the CMA during a home visit? How?
- d. If you wanted to tell a friend how to feed her 15 month old baby girl, where would you look on the card?

15. Can you explain the type of information on the card that would pertain to your youngest child?

16. Have you done anything different because of having the growth reminder card?

If Yes, Probe to see if the participant has done any of the following.

- a. What have you done differently regarding which foods should you feed your child?
- b. What have you done differently regarding how much food you would feed your child?
- c. What have you done differently regarding how often should you feed your child?
- d. What have you done differently regarding how should you feed your child?
- e. What have you done differently regarding what health practices you should do to care for your child?
- f. What have you done differently regarding what hygiene practices you should do to care for your child?
- g. What have you done differently regarding when you should take your child to the doctor or clinic?
- h. What have you done differently regarding how you should feed your child when they are ill or recovering from an illness?
- i. What have you done differently regarding how a women should feed her baby is she is HIV positive? **(Do NOT ask the women what her HIV status is)**

17. How would you suggest improving the growth reminder card?

Section II: Assessing Knowledge, Attitudes and Practices

Interviewer Text: Now, let's talk about what has changed since participating in the programme.

Ask if interviewee is a Mother of a 0 to 5 Month old child

18. Overall, what did you learn from the programme specific to caring for _____(child's name)?

- a. From birth what have you fed _____? Has _____ had anything else?
- b. What should be done if _____ seems hungry or thirsty?
- c. What do you do if the baby cries?
- d. When is it best to start porridge or small tastes of food?
- e. What should a mother do to produce more breast milk?

19. Have you done anything differently because of what you learned from the overall programme (this includes all the aspects of the campaign)? If yes, what have you changed? [probe to know how the campaign/programme as a whole worked and if this helped to change women's behavior].

Ask if interviewee is a Mother with a Child 6 to 11 Months

20. Overall, what did you learn from the programme specific to caring for _____ (child's name)?

- a. When did you begin to give ____ porridge or tastes of food?
- b. In addition to porridge is ____ eating other foods? If so, which ones?
- c. What are star foods and why are they important?
- d. Did ____ eat any star foods yesterday? Today? Which ones?
- e. How do you prepare your child's porridge?
- f. Why do babies get sick with diarrhea? How can you prevent it?

21. Have you done anything differently because of what you learned from the programme? If yes, what have you changed?

Ask if interviewee is a Mother with a Child 12 to 23 Months

22. Overall, what did you learn from the programme specific to caring for your youngest child?

- a. When did you begin to give ____ porridge or tastes of food?
- b. In addition to porridge is ____ eating other foods? If so, which ones?
- c. What are star foods and why are they important?
- d. Did ____ eat any star foods yesterday? Today? Which ones?
- e. Why do babies get sick with diarrhea? How can you prevent it?

23. Have you done anything differently because of what you learned from the programme? If yes, what have you changed?

Section III: Partner and Family Involvement

Interviewer Text: Now, let's talk about involvement from your partner or other family members.

24. Have you told your partner or other family members about the nutrition group sessions?

Yes **No**

If YES, probe:

- a. Who and what did you tell them?
- b. Have you discussed any of the materials with your partner?
 - i. Which products, to who? What did you tell them?
- c. Does your partner go to group meetings with you?
- d. Does he use any of the products? Which ones?
- e. Have you discussed star foods?
- f. Has he done anything specific to get more star foods in your diet or that of your child's?

Section IV: Programme Improvement

25. What were the best parts of the program?

26. What were the least useful parts of the program?

Closing: Thank you very much for coming and for sharing your ideas with us—we really appreciate your time.

APPENDIX II: IDI GUIDE FOR FATHERS OF CHILDREN AGED 0–23 MONTHS

INTRODUCTION: Fathers with Children 0—23 Months

Good morning/afternoon. My name is _____ and I work for the Communications Support for Health (CSH) programme based in Lusaka. I would like to talk with you about a 1,000 most critical days program that a nutrition program that been running in your community led by _____(CSO).

If asked: CSH is a USAID-funded programme that has been working in your community, specifically as a nutrition program focusing on the 1,000 most critical days. This is part of a larger government-led nutrition effort. CSH is comprised of staff from ICF International, Chemonics International and the Manoff Group.

Today, I would like to discuss your experiences with this program that has been going on to help families feed and care for mothers and young children better. We want to learn more about your experience in this program to help us better understand how to improve the nutrition of women and their children in other parts of Zambia.

I want to let you know that I'm not a medical professional, and I am not an expert on what we are going to discuss today. I am a trained interviewer. I want to hear your honest opinions about the topics we will discuss today. There is no right or wrong answer to the questions I'm going to ask. Please just relax and enjoy the discussion.

Please keep in mind that your participation in this discussion is completely voluntary. If for any reason you wish to leave the discussion, you may do so at any time.

Interview Guidelines

Before we begin, I'd like to review some important points about today's discussion. I want to make sure you know about how it will work and your rights.

- You have been invited here to share your views, experiences and opinions.
- Your answers will be confidential, so feel free to say exactly what is on your mind. Your name and your baby's name will not be used in any reporting but I'd like to use your names during the interview if that is OK.
- There are no right or wrong answers.
- This session will be audio taped. This is so we can capture everything that is being said today for the report.
- We have a notetaker here with us. His/her name is _____. He/she is here to make sure that we capture all of your comments in the event that something goes wrong with the recording. He/she has signed a confidentiality agreement, and won't be sharing your comments with anyone. He/she will not be taking part in the conversation, so we can just pretend he's/she's not there.
- You may excuse yourself from the conversation at any time for any reason.

Do you have any questions?

Other project staff from CSH may also listen. Is it okay to continue with the discussion?

Lastly, before we start please turn off the ringer on your cell phone

ICE BREAKER:

First, please introduce yourself:

What is your name?

How old are you?

Section I: Assessing Participation/Exposure

I would like to begin by asking about your partner's participation in the community group meetings that have been held with _____(CSO) and some of the materials/products that were provided to women to use at home through the CSH nutrition program.

27. Are you aware of these meetings?

Yes **No**

If YES, probe:

- a. If yes, please tell us what you know about the group meetings that your partner has been attending.
- b. Is she learning things you believe are applicable to your family? Such as what?
- c. Does she talk to you about what she is learning at the group meetings? What does she tell you?
- d. Have you attended any of the meetings with your partner? If so, how many?

Radio Programme

28. Apart from the meetings, have you listened to a radio programme called Bushes that Grow? The programme discusses nutrition and hygiene.

Yes **No**

If YES, probe:

- a. Can you name the main character or characters in the show?
- b. How many times did you listen to the programme?
- c. Was there anything surprising in the show? What?
- d. Was there something you did not know before? What?
- e. Where there any ideas or practices that you have tried or encouraged your family to try that you heard through the radio show?
- f. Is there anything you didn't especially like about the radio show? What?

Now I am going to show you some materials that have been distributed to see if you are familiar with them.

Child Feeding Mat

29. Have you seen the mat used to feed your children that your partner would have received from the nutrition promoter?

[Show the respondent a copy of the child feeding mat.]

Yes No

If YES, probe:

a. Can you tell me how have you or your partner used the feeding mat at home?

i. How are you using it ?

ii. How often do you use it?

b. Did anyone talk to you about what is on the mat?

Yes No

If yes, probe:

i. Who?

ii. Can you explain what the pictures on the mat are reminding the care giver to do?

iii. Do you know what “make your child a star” means?

c. How useful has the feeding mat been as a reminder of what foods should be included in your child’s meals?

d. Do you believe your child is fed differently because of guidance on the mat?

Yes No

i. If yes, in what way?

Growth Reminder Card

30. Have you seen the growth reminder card that your partner would have received during the community meeting or from the nutrition promoter?

[Show the participant the reminder card when asking the following questions.]

Yes No

If YES, probe:

a. Did anyone talk to you about what is on the card? If yes, Who?

i. Have you reviewed it with your partner or other family members?

- ii. How often do you review it?
 - iii. Do you think this is for you or only your partner? Why?
 - iv. What would make it motivate or encourage you to refer to the card?
- b. Can you explain the type of information on the card that would pertain to your youngest child? **Participants should provide spontaneous responses, do NOT read the list of categories below.** Mark with an 'X' all the categories are mentioned by respondent and record what the details of what they said specific to their youngest child.
- ___ Which foods should you feed your child?
 - ___ How much food?
 - ___ How often should you feed your child?
 - ___ How should you feed your child?
 - ___ What other health and hygiene should you do to care for your child?
 - ___ When should you take them to the doctor?
 - ___ How should you feed them when they are ill or recovering from an illness?
- c. Have you done anything differently because of having this card?

Section II: Assessing Knowledge, Attitudes and Practices

31. Now, we're going to discuss what you and your partner have learned and done as a results of the campaign. Has your partner tried to talk to you about Star foods?

- a. If yes, what do know about star foods?

32. Have you made any changes to your family's nutrition and hygiene behaviours since participating in the programme?

If male partner made changes, probe:

- a. What changes have you made?
 - i. Are you eating different foods? – with more locally available star foods? (i.e. meats, fish, vegetables, and fruits) than before the programme?
 - ii. Have you changed anything else – such as your hygiene – because of what you learned from the programme? If yes, how have you changed?

If female partner made changes, probe:

- b. What is she doing differently?
- c. What role did you play in making these changes to the nutrition and hygiene behaviours?

i. Have you helped to provide more star foods for your family? In what way?

33. What are your suggestions for improving a programme that is designed to help families take better care of their youngest children to make it more useful for you and your community?

Closing

Thank you very much for coming and for sharing your ideas with us—we really appreciate your time.

APPENDIX III: IDI GUIDE FOR DISTRICT NUTRITIONISTS/HEALTH CENTRE STAFF

INTRODUCTION: DNs/ Health Centre Staff

Good morning/afternoon. My name is _____ and I work for the Communications Support for Health (CSH) programme based in Lusaka. I would like to talk with you about a 1,000 most critical days program that a nutrition program that been running in your community led by _____(CSO).

If asked: CSH is a USAID-funded programme that has been working in your community, specifically as a nutrition program focusing on the 1,000 most critical days. This is part of a larger government-led nutrition effort. CSH is comprised of staff from ICF International, Chemonics International and the Manoff Group.

Today, I would like to discuss your experiences with this program that has been going on to help families feed and care for mothers and young children better. We want to learn more about your experience in this program to help us better understand how to improve the nutrition of women and their children in other parts of Zambia.

I want to let you know that I'm not a medical professional, and I am not an expert on what we are going to discuss today. I am a trained interviewer. I want to hear your honest opinions about the topics we will discuss today. There is no right or wrong answer to the questions I'm going to ask. Please just relax and enjoy the discussion.

Please keep in mind that your participation in this discussion is completely voluntary. If for any reason you wish to leave the discussion, you may do so at any time.

Interview Guidelines

Before we begin, I'd like to review some important points about today's discussion. I want to make sure you know about how it will work and your rights.

- You have been invited here to share your views, experiences and opinions.
- Your answers will be confidential, so feel free to say exactly what is on your mind. Your name and your baby's name will not be used in any reporting but I'd like to use your names during the interview if that is OK.
- There are no right or wrong answers.
- This session will be audio taped. This is so we can capture everything that is being said today for the report.
- We have a notetaker here with us. His/her name is _____. He/she is here to make sure that we capture all of your comments in the event that something goes wrong with the recording. He/she has signed a confidentiality agreement, and won't be sharing your comments with anyone. He/she will not be taking part in the conversation, so we can just pretend he's/she's not there.
- You may excuse yourself from the conversation at any time for any reason.

Do you have any questions? Other project staff from CSH may also listen. Is it okay to continue with the discussion?

Lastly, before we start please turn off the ringer on your cell phone

ICE BREAKER:

What is your position title?

How long have you been in this position?

In your position, have you be a part of the meetings/planning sessions with NFNC on the First 1,000 Most Critical Days Programme?

Is this a programme you are responsible for in the District?

Section I: Knowledge of the First 1000 Days Nutrition Campaign Communication Component

We would like to start by talking about the nutrition programme which is being implemented by CSH and [INSERT IMPLEMENTING CSO(S) IN _____(DISTICT)].

1. How was the programme first introduced to you?

- When did you learn about the programme?
- How was the programme introduced to you?
- Please describe the goal of the programme?
- What activities are you aware of that are being implemented in [INSERT NAME OF THE DISTRICT]? **Participants should provide spontaneous responses, do NOT read the list of responses below. Mark with an 'X' all that are mentioned by the respondent:**

- Nutrition group meetings
- Cooking Demonstrations
- Nutrition promoter supportive supervision
- Home visits by Community Malaria Agents (CMAs)
- Child feeding game
- Child feeding mat
- Growth reminder card
- Other (please specify):

2. How have you been involved in the programme? **Participants should provide spontaneous responses, do NOT read the list of responses below. Mark with an 'X' all mentioned by the respondent:**

- Met with the CSO regarding their plans
- Participated in nutrition group meetings
- Participated in training of NPs
- Attended training of NPs
- Supervised NPs
- Participated in a cooking demonstration
- Other (please specify):

3. Are you aware of any of the products from the programme being implemented in other communities not included in the CSH nutrition campaign? *If yes, mark with an 'X' all those that the respondent mentions. **Participants should provide spontaneous responses, do NOT read the list of responses below :***

- Radio programme (*Bushes that Grow*)?
- Child feeding game?
- Child feeding mat?
- Growth reminder card
- Other (please specify):

4. Which of the products do you believe were developed as part of the First 1,000 Most Critical Days nutrition campaign? *Mark with an 'X' all those that the respondent mentions. **Participants should provide spontaneous responses, do NOT read the list of responses below.***

- Radio programme (*Bushes that Grow*)?
- Child feeding game?
- Child feeding mat?
- Growth reminder card
- Other (please specify):

5. What are some interesting or creative ways the products are being used in communities?

Section II. Perceived Effectiveness of Program Delivery and Localization

Interviewer Text: Next, I'd like to ask you about how the program was delivered and how effective you think the program has been in [INSERT NAMES OF THE COMMUNITITES IN THE DISTRICT].

6. What practices does the programme promote to reduce stunting?
7. Do you believe these are the correct practices to focus on?
8. What components of the programme have been the most effective? Why? **Participants should provide spontaneous responses, do NOT read the list of responses below.** *Mark with an 'X' all mentioned by the respondent.*

Radio Program:	Group sessions:	Growth reminder card:
Child feeding game:	Child feeding mat:	Other (specify):

9. What components of the project have been the least effective? Why? **Participants should provide spontaneous responses, do NOT read the list of responses below.** *Mark with an 'X' all mentioned by the respondent.*

Radio Program:	Group sessions:	Growth reminder card:
Child feeding game:	Child feeding mat:	Other (specify):

10. Overall, how well do you think the NPs have functioned?

11. Do you agree with developing this type of community agents?
12. Has the delivery of the program varied between communities? If yes: Why do you think that is? In what way(s) has it varied?
13. The programme/campaign is designed to use a range of different approaches, such as group meetings and take-home materials to educate and reinforce recommendations on good nutrition and hygiene. What do you think generally about this approach?
14. Have you observed any changes in the communities where the programme is being implemented? If so, what changes have you observed?
15. What are your suggestions for improving the implementation of this programme/campaign?

Section III. Possibility and Feasibility of Scale-Up Efforts

Interviewer Text: Now, let's discuss your opinions on the possibility and feasibility of expanding the programme.

16. Given what you know of the programme, how does it fit into the other activities and initiatives happening in the District?

Probe:

- Would you support expanding this programme? Why or why not?
 - How important do you think it would be to expand this programme/campaign?
 - Is it included in the First 1,000 Most Critical Days Program planning and budgeting for additional months/next year? Why or why not?
17. What would need to be put in place to facilitate the expansion of the program?
 18. What challenges do you foresee in implementing and expanding this programme/campaign into other communities?
 - How do you expect the district health office would be able to address these challenges?
 19. What recommendations do you have for those developing plans for expanding this programme/campaign through the the First 1,000 Most Critical Days Program?

Closing Thank you very much for coming and for sharing your ideas with us—we really appreciate your time

APPENDIX IV: IDI GUIDE FOR NUTRITION PROMOTERS

INTRODUCTION: (NPs)

Good morning/afternoon. My name is _____ and I work for the Communications Support for Health (CSH) programme based in Lusaka. I would like to talk with you about a 1,000 most critical days program that a nutrition program that been running in your community led by _____(CSO).

If asked: CSH is a USAID-funded programme that has been working in your community, specifically as a nutrition program focusing on the 1,000 most critical days. This is part of a larger government-led nutrition effort. CSH is comprised of staff from ICF International, Chemonics International and the Manoff Group.

Today, I would like to discuss your experiences with this program that has been going on to help families feed and care for mothers and young children better. We want to learn more about your experience in this program to help us better understand how to improve the nutrition of women and their children in other parts of Zambia.

I want to let you know that I'm not a medical professional, and I am not an expert on what we are going to discuss today. I am a trained interviewer. I want to hear your honest opinions about the topics we will discuss today. There is no right or wrong answer to the questions I'm going to ask. Please just relax and enjoy the discussion.

Please keep in mind that your participation in this discussion is completely voluntary. If for any reason you wish to leave the discussion, you may do so at any time.

Interview Guidelines

Before we begin, I'd like to review some important points about today's discussion. I want to make sure you know about how it will work and your rights.

- You have been invited here to share your views, experiences and opinions.
- Your answers will be confidential, so feel free to say exactly what is on your mind. Your name and your baby's name will not be used in any reporting but I'd like to use your names during the interview if that is OK.
- There are no right or wrong answers.
- This session will be audio taped. This is so we can capture everything that is being said today for the report.
- We have a notetaker here with us. His/her name is _____. He/she is here to make sure that we capture all of your comments in the event that something goes wrong with the recording. He/she has signed a confidentiality agreement, and won't be sharing your comments with anyone. He/she will not be taking part in the conversation, so we can just pretend he's/she's not there.
- You may excuse yourself from the conversation at any time for any reason.

Do you have any questions?

Other project staff from CSH may also listen. Is it okay to continue with the discussion?

Lastly, before we start please turn off the ringer on your cell phone.

ICE BREAKER:

As we start this interview, could you please introduce yourself.

How old are you?

How long have you been a nutrition promoter?

Why did you decide to become a nutrition promoter?

Are you currently involved in any other programs as a community volunteer/worker? If yes, which one?

Section I: Nutrition Promoter Roles/Responsibility

1. What are your major tasks as a nutrition promoter, the work you do in nutrition with [INSERT NAME OF CSO]? Please describe in detail each of the tasks.

Interviewer Text: Now, let's talk about the group meetings:

2. How did you organize the group meetings?
 - How often were they in each community? Where were they held?
 - How did you prepare for a meeting?
 - How did you recruit mothers to come to the nutrition session?
3. How many women attended the group meetings?
 - How many were recruited by you or the CMA as part of the programme?
 - How many were husbands, other family members, or other women from the community?
 - Why do you feel that others that are not in the programme attended the meetings?
4. Did district government staff attend any of your meetings? Did they attend regularly?
5. What about CSO staff? Did they attend regularly? Who from the CSO?

Section II: Campaign Components and Products

6. Did you receive the nutrition promoter guide? ___Yes ___No

If yes, ask:

- How was the guide introduced to you?
- How did you use the guide in preparing for group meetings?
- How did you use the guide during the group meetings?
- How many sessions did you use the guide for?
- In your opinion was the guide easy to understand?
- Do you have any suggestions on how to improve the guide?

If no, ask:

- How did you run the group sessions?
- What was a typical session like?
- What information or activities did you do with the mothers?

7. What activities in the group meetings did mothers seem to enjoy the most?
8. Where there any activities or topics covered that you felt mothers learned more from?
9. What activities in the group meetings were more challenging? In what way?
 - How did you face the challenges?
 - Did anyone support you?
10. Do you think mothers are doing anything differently after participating in the group meetings?
 - If yes, what?
 - If no, why not?
11. What if any changes did you make to the way that you organized and conducted the meetings?
12. What are your suggestions for improving the group meetings?

Now, let's talk about the cooking demonstrations.

13. How many cooking demonstrations did you conduct?
14. How were they conducted?
 - What was your role?
 - How did the CSO support you?
 - What recipes did you make? Where did you get the recipe from?
 - Who brought the food and cooking supplies?
 - Who attended? (mothers, children, husband, district nutritionist, cso staff, csh staff etc)
 - How did the mother participate?
15. What were the most successful parts of the cooking demonstrations?
16. What was the most challenging part of the cooking demonstration?
17. Do you think mothers are doing anything differently after going to a cooking demonstration?
 - If so what?
 - If not why?
18. What are your suggestions to improve cooking demonstrations?

Now, let's talk about the different campaign products that you were given. Through the CSH/CSO programme, you were provided with a variety of products, I'd like to ask you some questions about them.

19. Did you receive the "Bushes that Grow" radio show on CD or flash disk?

If yes, ask:

- How did you listen to it in the group?
- Do you think mothers are doing anything differently because of listening to the radio show?
 - If so what?
 - If not, why?

If no, ask:

- Have you heard about the radio show “Bushes that Grow”?
- Did you hear the show while you were a nutrition promoter?
 - If yes, where did you hear it and how many times?
- Did any of the mothers in the nutrition promoter group listen to the show?
 - If yes, where and how many times?

20. Did you distribute Growth Reminder Cards to the women in your group? *Mark yes or no with an ‘X.’*
___Yes ___No

If yes, ask:

- Have you used the card in the group meetings?
 - If not please describe the reason for why not.
- Can you tell me how you used it during the group meetings?
- Please show me how you might use the card to advise the mother of an 11 month old baby on feeding.
- Do you think mothers are doing anything differently because of the reminders on the growth reminder card? What specifically are they doing?
- How would you suggest improving the growth reminder card?

21. Did you distribute the Child Feeding Mat to the women in your group? *Mark yes or no with an ‘X.’*
___Yes ___No

If yes, ask:

- Have you used the mat in the group meetings?
 - If not please describe the reason for not.
- Can you tell me how you used it during the group meetings?
- Can you explain the pictures on the mat?
- What does “make your child a star” mean?
- Do you think mothers are doing anything differently because of the reminders on the mat? What specifically are they doing?
- How would you suggest improving the child feeding mat?

22. Did you play the Child Feeding Game with the women in your group? *Mark yes or no with an ‘X.’*
___Yes ___No

If no, ask:

- If not please describe the reason for not.

If yes, ask:

- Can you tell me how you used it during the group meetings?
- What is the purpose of the child feeding game?
- Can you explain the instructions of the game and how you played it with mothers?
- What do the symbols on the different cards mean?
- What do the bowls on the game board mean?

- Are the other products, like the feeding mat, growth reminder card and radio show, helping mothers to play the game?
 - Do you think mothers are doing anything differently because of playing the game? What specifically are they doing?
 - How would you suggest improving the child feeding game?
23. Are there any other techniques or approaches that you have used to help the women in your group learn about the various campaign products or messages?

Section III: Training

24. Did you receive any training at the start of the program to learn how to be an NP? *Mark yes or no with an 'X'.* ___Yes ___No

If no, ask:

- Why there was no training provided?

If yes, ask:

- How many days was the training?
- What topics did you receive training on? *Mark with an 'X' all mentioned by the respondent:*
 - Overview of the 1000 Most Critical Days campaign
 - How to use the nutrition products (growth reminder card, feeding mat, child feeding game, radio show)
 - How to use the nutrition promoter guide
 - How to conduct group meetings
 - Other (please specify):
- Did you feel like you were adequately prepared to start your job as an NP?
 - If yes- tell me why?
 - If no, why not?

Section IV: Monitoring and Support to you as an NP

25. As a NP, did you receive any support from the CSO or CSH to help you to do your job after the initial training? What sort of support? *Mark with an 'X' for all that are mentioned by respondent.*

- Allowance
- Additional training (specify topics): _____
- Materials/products (specify which ones): _____
- Food for cooking demonstrations
- Supportive supervision
- Other (please specify): _____

26. What other support would you want to help you do your job better?

- Did you ask the CSO or CSH staff to see how this could be included in the program? If yes, what was their response?

27. As a nutrition promoter did you ever attend another nutrition promoter's group meeting?

- Did you do this to provide peer support for another NP?
- Has someone used the supportive supervision forms to observe your work?

If yes, ask:

- Who was it? (a peer, CSH staff, CSO staff, District Staff, Health center staff)
- What feedback did they give you?
- After they gave you feedback did you do anything differently?

Section V: Changes at community level

28. Have you observed any changes or improvements in nutrition or hygiene-related knowledge in the community you work in? Any changes in attitudes/beliefs and/or behaviours or practices? If yes, please elaborate what specific changes or improvements you've observed.

Section VI: Scale up/ Sustainability of programme

29. What is the most important aspect of the program to continue?

30. Some NPs have committed to continue working in their communities after CSH/CSO program ends. Why do you think they are doing that? Have you considered doing that too? Why or why not?

31. Do you feel this program is important for your community and others in Zambia? Why or why not?

VII. Closing

Thank you very much for coming and for sharing your ideas with us- we really appreciate your time.

APPENDIX V: IDI GUIDE FOR CSO STAFF MEMBERS

INTRODUCTION: CSO Staff Members

Good morning/afternoon. My name is _____ and I work for the Communications Support for Health (CSH) programme based in Lusaka. I would like to talk with you about a 1,000 most critical days program that a nutrition program that been running in your community led by _____(CSO).

If asked: CSH is a USAID-funded programme that has been working in your community, specifically as a nutrition program focusing on the 1,000 most critical days. This is part of a larger government-led nutrition effort. CSH is comprised of staff from ICF International, Chemonics International and the Manoff Group.

Today, I would like to discuss your experiences with this program that has been going on to help families feed and care for mothers and young children better. We want to learn more about your experience in this program to help us better understand how to improve the nutrition of women and their children in other parts of Zambia.

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Interview Guidelines

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- There are no right or wrong answers.
- This session will be audio taped. This is so we can capture everything that is being said today for the report.
- We have a notetaker here with us. His/her name is _____. He/she is here to make sure that we capture all of your comments in the event that something goes wrong with the recording. He/she has signed a confidentiality agreement, and won't be sharing your comments with anyone. He/she will not be taking part in the conversation, so we can just pretend he's/she's not there.
- You may excuse yourself from the conversation at any time for any reason.

Do you have any questions?

Other project staff from CSH may also listen. Is it okay to continue with the discussion?

Lastly, before we start please turn off the ringer on your cell phone.

ICE BREAKER:

1. What is your name?
2. What is your position title?
3. What is your role at _____ (CSO)
4. How long have you been in this position?
5. For how long have you been involved in the CSH nutrition programme?
6. What is your role on the nutrition programme? **Participants should provide spontaneous responses, do NOT read the list of categories below.** Mark with an 'X' all that are mentioned by the respondent:
 - Programme Management
 - Supervision of the nutrition promoters (directly)
 - M&E/Reporting
 - Training
 - Liaise with District and HC officials
 - Other (please specify):
7. Please describe for us the overall programme/campaign.
 - What is the goal of the programme/campaign?
 - What are the key components/activities that are being implemented under the programme/campaign? **Participants should provide spontaneous responses, do NOT read the list of categories below.** Mark with an 'X' all that are mentioned by respondent:
 - Nutrition group meetings
 - Cooking Demonstrations
 - NP Supportive supervision
 - Home visits by Community Malaria Agents (CMA)
 - Child feeding game
 - Child feeding mat
 - Growth reminder card
 - Other—please specify

Section II: Perception of the programme components

Interviewer Text: Now, let's talk about the communication components in more detail.

8. The nutrition promoters in the programme were contracted by your organization for the programme, what are their main tasks? **Participants should provide spontaneous responses, do NOT read the list of categories below.** Mark with an 'X' all that are mentioned by respondent:
 - Conducting group meetings
 - Supervising each other (as peers)
 - Giving out the communication products
 - Leading cooking demonstrations
 - Conducting home visits (as a Community Malaria Agent-CMA)
 - Leading the child feeding game
 - Recruitment of mothers
 - Other (please specify):

Group meetings:

9. How often do NPs hold group meetings in each of the communities?

10. Have you attended any of the meetings? ___Yes ___No

If yes probe:

- How many women typically attend the meetings?
- Have any male partners attended the group meetings?
- Were any other family members to the mothers?
- What activities and products have the nutrition promoters used during the group meetings?
Participants should provide spontaneous responses, do NOT read the list of categories below.
Mark with an 'X' all that are mentioned by respondent:

- Cooking Demonstrations
- Child feeding game
- Radio show
- Child feeding mat
- Growth reminder card
- Other (please specify):

- What activities engaged more participants during the group meetings?
- What activities were the most useful for participants?
- What do NPs use to plan and guide each group meeting? Where does the content presented in the group meetings coming from?

If the Nutrition Promoter guide is mentioned, **PROBE:**

- What is the most useful part of the guide?
- What is the least useful part of the guide?
- What suggestions do you have for improving the guide?

11. What support do the nutrition promoters receive from you as the CSO? **Participants should provide spontaneous responses, do NOT read the list of categories below.** *Mark with an 'X' all that are mentioned by the respondent.*

- Training
- Supportive supervision
- Routine monitoring
- Other (please specify):

If **training** is mentioned, ask:

- How many trainings have been conducted for the nutrition promoters?
- By whom?
- What were the topics covered during the training(s)?

If **supportive supervision** is mentioned, ask:

- How were you involved in providing supportive supervision to the nutrition promoters?
- Are you using the forms provided by CSH?
- What is the most useful part of the forms?

- What is the least useful part of using the forms?
- What suggestions do you have for improving supportive supervision?

If **routine monitoring** is mentioned, ask:

- How is _____(CSO) monitoring the nutrition promoters?
- How are you involved in the monitoring?
- What is the most useful part of the monitoring for the nutrition promoters?
- What is the least useful part of the monitoring for the nutrition promoters?
- What suggestions do you have for improving routine monitoring?

Interviewer Text: Now, I'd like to ask your opinions of the specific campaign products and your suggestions on how they could be improved.

12. What are your thoughts of the growth reminder card?

- How has the card been used by the nutrition promoters?
- Has the card been used by Community Malaria Agents during home visits?
- Have you seen it be used in other settings beyond group meetings? For example at the health centre. If yes, how was it used?
- Are you aware of mothers making reference to the card?
- Do mothers keep the card with the child growth card?
- What is the most useful part of the growth reminder card?
- What is the least useful part of the growth reminder card?
- Do you think mothers are doing anything differently because of the reminders on the card? If so, what?
- How would you suggest improving the growth reminder card?

13. In general, what do you think of the child feeding mat?

- How has the child feeding mat been used by the nutrition promoters? The women in the programme?
- Have you seen it be used in other settings beyond group meetings? If yes, how was it used?
- Have you seen mothers use the mat at home? Do they refer to the pictures?
- What does “make your child a star” mean?
- What is the most useful part of the child feeding mat?
- What is the least useful part of the child feeding mat?
- Do you think the feeding mat is easy for women to understand? To use? How useful do you feel the feeding mat has been as a reminder of what foods women should be including in their child's meals?
- Do you think mothers are doing anything differently because of the reminders on the mat? If yes, what?
- What are your suggestions for improving the child feeding mat?

14. What do you think of the child feeding game?

- How has the child feeding game been used by the nutrition promoters?
- Have you observed the groups playing the game?
 - If YES, probe:**
 - Did the group members use the game to practice what they could feed their child?
 - Have you seen the game be used in other settings beyond group meetings? If yes, how was it used?
 - What was the most useful part of the child feeding game?

- What is the least useful part of the child feeding game?
- Do you think mothers are doing anything differently because of playing the game?
- What suggestions do you have for improving the game? What suggestions do you have for improving how the game is used in the group meetings?

15. How have you used the “Bushes that Grow” radio show in the programme?

- How was it used by the nutrition promoters?
- Have you seen it used outside of group meetings, how?
- What is the most useful part of the radio show?
- What is the least useful part of the radio show?
- Have you heard women talking about the show? What did they say?

Section III: Perceived Effectiveness of the Programme and its Implementation

Interviewer Text: Now, we’re going to discuss how effective you think the implementation of the nutrition programme has been and how effective it has been in improving nutrition and hygiene related behaviours in the communities.

16. What components or activities of the programme have worked well? Why?

17. What components or activities of the programme need improvement? Why?

18. How has the effectiveness of the implementation varied in each of the communities (specifically the 2 communities we are looking at)? Why do you think that is?

19. Have you observed any changes or improvements in nutrition or hygiene-related knowledge in the communities? Any changes in attitudes/beliefs and behaviours or practices? If yes, please specify what changes/improvements.

Overall, what recommendations do you have for improving the programme?

Section IV. Possibility and Feasibility of Scale-Up Efforts

Interviewer Text: For the last part of our discussion, let’s discuss your opinions on the possibility and feasibility of continuing the programme after CSH ends and also expanding the programme/campaign to other areas of the country.

20. Do you think the programme, or certain aspects of the programme, will continue on after CSH ends by the CSO? By the community?

If YES:

- What aspects/activities of the programme do you think will continue?
- Do you think some of the nutrition promoters will continue working in their communities?
- Will the health centers or District Nutritionists continue using the products?
- What support or resources do you think will need to be in place to continue on with these aspects of the programme?

21. Given what you know of the programme, what are your thoughts on the possibility of expanding it into other parts of your district and other areas of the country?

- Would you support expanding this programme/campaign? Why or why not?
- How important do you think it would be to expand this programme/campaign?

22. What challenges do you foresee in implementing and expanding this programme/campaign into other communities?

- How do you expect the district health office would be able to address these challenges?

23. What recommendations do you have for those developing plans for expanding this programme/ under the the First 1,000 Most Critical Days Programme?

Closing

Thank you very much for coming and for sharing your ideas with us—we really appreciate your time.