ORIE Nutrition Research in Northern Nigeria

How to strengthen the CMAM programme in Northern Nigeria and reduce rates of programme defaulting

Author: The OR Research Team*

Preface / Acknowledgements

This report presents findings from the operations research (OR) study which was conducted to identify barriers to attendance of the Maternal Neonatal and Child Health Weeks programme (MNCHW), in two states of northern Nigeria - Jigawa and Zamfara States. The work was a collaborative project between the London School of Hygiene & Tropical Medicine, Food Basket Foundation International and Oxford Policy Management. The OR research team included the following members in alphabetical order:

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Finally, the authors would also like to acknowledge the valuable contribution towards overall project management / planning from the Oxford Policy Management staff; namely Dr. Emma Jones, Dr. Vincent Ahonsi, Tarker Alu and Ijeoma Iroaganachi.

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Executive Summary

Introduction

The treatment and prevention of severe acute malnutrition via the Community Management of Acute Malnutrition programme (CMAM) is one of four outputs of the DFID-funded development project “Working to Improve Nutrition in Northern Nigeria” (WINNN). This output aims to deliver, in the five WINNN supported northern states, effective treatment for severe acute malnutrition through local health systems. WINNN is implemented by UNICEF, Action Against Hunger (ACF) and Save the Children International (SCI), in partnership with the five state governments. SCI is responsible for its implementation in Zamfara, Kebbi and Katsina states, and ACF is responsible for its implementation in Jigawa and Yobe states.

The CMAM services include:

(1) Community outreach, for the early identification and referral of severe acute malnutrition (SAM) and later follow-up;

(2) Outpatient care for children with SAM without medical complications at health facilities and at home (Outpatient Therapeutic Programme, OTP);

(3) Inpatient care for children with SAM, and medical complications or no appetite (Inpatient Therapeutic Programme, ITP).

Each of the five WINNN states implements the CMAM programme in 3 LGAs. The CMAM services are currently provided in 79 OTP centres and 15 ITP centres across the 5 states. As of April 2014, the WINNN CMAM programme had admitted 58,515 children aged 6-59 months, which exceeded their cumulative target levels by 46%. However, WINNN identified several key challenges for the CMAM programme. There are currently relatively high programme default rates and there are implementation challenges at the community, LGA and state levels that might impact on the long-term sustainability of the CMAM programme and its integration into the primary health care system. WINNN requested that the ORIE facilitate operations research to address the following objectives:

1. To determine opinions and perceived benefits of the CMAM programme amongst mothers and fathers of CMAM beneficiaries and programme functionaries
2. To identify the common reasons for beneficiaries not presenting to or defaulting from the CMAM programme and the challenges they face in accessing CMAM services
3. To understand what is required to ensure workloads of Health Workers (HW) and Community Volunteers (CVs) are manageable and their motivation and long-term commitment to the CMAM programme remains high
4. To understand what is required to successfully integrate CMAM into the primary health care system

This summary provides an overview of this research.

Research Approach

The CMAM operations research was conducted in two Local Government Areas (LGAs) in two of the five WINNN focal states in northern Nigeria: Jigawa and Zamfara. Data were collected through focus group discussions (n=24 FGDs) and in-depth interviews (n=44 IDIs).

FGDs were facilitated with:

(a) Mothers of CMAM beneficiaries who had and had not defaulted from the CMAM programme);
(b) CMAM programme community volunteers (male and female).

IDIs were facilitated with:

(a) State and LGA level officials,
(b) Health workers (management and front line positions in the CMAM programme)
(c) Fathers of CMAM beneficiaries (defaulters and non-defaulters).

The community level FGDs and IDIs were done in four strata: (1) urban high/moderate defaulter areas; (2) rural high/moderate defaulter areas; (3) urban low defaulter areas; and (4) rural low defaulter areas.

Key Findings

Opinions and benefits of the programme

The overall opinion of the CMAM programme was highly positive across all interview strata and across both states. CMAM was trusted, well-accepted and appreciated. It was considered a highly visible and effective programme for the treatment of severe acute malnutrition, for which the government was given credit. It was felt to contribute to community progress and to save children's lives.

Other perceived benefits of the CMAM programme at the community and health systems levels were that it brought people into the health care system, reducing care seeking from herbalists and traditional healers; it increased the status of health care workers and community volunteers in the community; and mothers of CMAM beneficiaries were educated on general health issues and causes of malnutrition. There was a perception that CMAM is well integrated with other programmes in the health care system, and particularly with childhood immunisation. Respondents were positive about this integration because other interventions are delivered on CMAM days along with the ready-to-use-therapeutic-food (RUTF) and treatment drugs. This includes health education and advice on specific preventive behaviours such as antenatal advice for mothers, hygiene education, infant and young child feeding (IYCF), family planning and HIV counselling. These interventions were perceived to contribute to an overall improvement in maternal and child health status in the communities through the prevention, detection and treatment of other illnesses as well as SAM.

Barriers to attendance and causes of defaulting

The key barriers to attendance, perceived across all interview strata, were distance to a CMAM facility, drug /RUTF stock-outs, lack of transport, and a lack of support from husbands (some of whom forbade their wives' attendance or did not / could not provide transport money). Women often had to travel long distances to attend CMAM clinics, in some cases incurring transportation costs they could not afford. These barriers, when compounded by long waiting times at the health facility, made women disinclined to make a return visit, especially if they had experienced or had heard rumours of stock-outs of RUTFs or medicines or their child's health had improved.

Reasons specific for defaulting included the perception that a child is healthy after few weeks of treatment and no longer needed RUTF, distance from the health facilities or lack of transportation; the death of a registered CMAM beneficiary (child) or poor maternal health, maternal death or the birth of another child. Amongst some there was a mistrust of the safety of RUTF or its true purpose (for example, some believed that it might reduce fertility in the child receiving it). Competing demands for the woman's time, such as other household chores, ceremonies and travels, were also cited as reasons for defaulting. Some mothers who had defaulted from the programme also stated they had been ignorant about the reason it is important to complete the treatment regime.

Implementation challenges

Community Volunteers

Community volunteers (CVs) were perceived by all interview strata to be vital for the success of the CMAM programme. However, there were important constraints for undertaking their role. They received almost no remuneration, and many had to leave their income generating activities to carry out CMAM duties, while at the same time incurring transportation costs. CVs, especially make CVs in both states, wanted to be given more responsibility in the CMAM programme than their current role allowed. CVs also felt they were sometimes ridiculed by community members (usually non-beneficiaries of CMAM) because they were working as a volunteer. Some also felt the health system did not treat them fairly because it did not reward hard work (i.e., all CVs received the same remuneration regardless of the hours of work done). They also felt some of the tasks they had been asked to do were culturally inappropriate, such as male volunteers measuring the mid-arm circumference of a child of a woman he did not know. Although the CVs in Zamfara State appreciated efforts made to motivate them with occasional monetary tokens and the competition sponsoring a pilgrimage to the Holy Land (Saudi Arabia) for one of its most dedicated CVs, they felt more could be done to motivate CV participation in the CMAM programme. Concerns were raised by some CVs and community leaders that the de-motivating factors may create a reluctance to take on the role of CV by other community members; because a reputation is growing that it involves hard work without rewards. CVs who continued to faithfully carry out their responsibilities did so because of their religious convictions, a desire to contribute to community development, and to save the lives of children.

Health Workers

Government officials and health workers (HWs) in both States were concerned about the insufficient number of trained HWs in CMAM health facilities. To meet the high demand for CMAM, it is often necessary to recruit HWs from other facilities on CMAM days to manage the heavy workload; and HWs from other facilities did not always turn up as assigned or were not always trained in CMAM activities. Frequent HW redeployment also puts additional pressure on the CMAM programme, especially when CMAM trained HWs are replaced by those who are untrained. At the moment, the focus of training is primarily on HWs in health facilities currently delivering CMAM services.

Sustainability and integration

Based on the reports and perceptions of the government officials there were marked inter-state differences in financial commitments to the CMAM programme from governments at the State and LGA levels. In Zamfara, LGA Chairmen provide regular contributions to a State level basket fund

and 80% of their nutrition budget is designated for CMAM[1]. These earmarked funds are to secure adequate resources and establish mechanisms for financial sustainability in the absence of partners. In Jigawa there was perceived to be little support at the State and LGA level for CMAM except for local transport and distribution of RUTF.

Study findings on factors contributing to the support for financial sustainability in Zamfara State include: 1) a basket fund to which money can be given by the LGA Chairmen; 2) funds donated by some members of the community 3) a meeting convened in Abuja by UNICEF for LGA and State level government officials 4) the awareness raised with both the LGA Chairmen and Emir 5) the visibile impact of CMAM on children with SAM; 6) a desire at the State level to own and sustain the programme.

As mentioned above CMAM was perceived as well integrated into the primary health care system, because other programmes are delivered along with CMAM. There were few mentions however, of wider health systems integration beyond this service delivery. CMAM was perceived to be a programme not required by everyone and therefore the current model of having dedicated CMAM days, like for example antenatal care days, was appropriate.

Recommendations provided by study participants

The most common **recommendations to reduce defaulting and increase attendance**, reported across interview strata, were to ensure timely, regular and sufficient supplies of RUTF/drugs and to clearly communicate the programme benefits, its weekly schedule and the importance of completing the full course of RUTF. Other important recommendations were made to improve CMAM access, including recommendations to increase the number of facilities providing CMAM and to provide transport to the existing facilities. Recommendations, to reduce defaulting/increase attendance, which were only made by mothers and fathers of CMAM beneficiaries were to show tolerance towards defaulters (i.e., re-enrolling them instead of sending them away) or providing additional incentives such as soap.

The main **recommendations related to enhancing CV motivation** were to provide material incentives. However, other recommendations, which came from the CVs themselves, were to provide monthly review meetings to discuss work related issues, to provide regular training / health education sessions and to reduce their workloads by rotating duties across many CVs so they did not work every week. For the long-term sustainability of the CMAM programme it will be important to increase the status of CVs in the community and health care system. To reach the most vulnerable, for SAM, and ensure effective follow up, it will be necessary to finance the deployment of CVs to remote areas.

Other recommendations made to strengthen CMAM programme implementation were to increase the number of regular training sessions for HWs and CVs in all facilities, improve the infrastructure of health facilities to manage the high demand for CMAM and to designate a budget line, in the state budget, for the CMAM programme

Recommendations for WINNN

Short to medium term

1. Explore options for improving CMAM programme access, such as:

[1] Oxford Policy Management (2014). ORIE Qualiative Impact Evaluation: Governance contexts for nutrition interventions. Baseline Report (draft). Sections 7.6, 7.8 and 7.11.

   a. programme financing and/or providing transportation to mothers on CMAM days,

   b. WINNN encouraging communities to identify ways of providing transport for children identified as needing CMAM treatment

   c. increasing coverage of CVs in rural areas for early identification of SAM cases

2. Develop and implement plans for capacity and systems strengthening, especially at the LGA level, to ensure a constant supply of RUTF and essential drugs through effective forecasting, timely delivery of sufficient supplies and safe storage

3. Design and test strategies of material and non-material incentives for CVs including providing means of transportation for them to reach remote areas or facilitating indirect mechanisms that would serve to improve livelihoods or reduce their losses.

4. Review strategies for health worker training. Explore the feasibility and cost of more frequent trainings in CMAM health facilities versus integrating CMAM training into a standard health worker training syllabus and/or other trainings.

5. Consider the feasibility of supporting or advocating for the establishment of mechanisms and resources that would ensure financial sustainability of CMAM in Jigawa and other WINNN States perhaps based on the model developed in Zamfara State

Long term

- Increase the number of health facilities providing CMAM services

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List of Abbreviations

ACF	Action Against Hunger (Action Contre la Faim)
ANC	Antenatal Care
CMAM	Community Management of Acute Malnutrition
CV	Community Volunteer
DFID	UK Department for International Development
FBFI	Food Basket Foundation International
FGD	Focus Group Discussion
HW	Health Worker
IDI	In-depth Interview
ITP	Inpatient therapeutic programme
IYCF	Infant and Young Child Feeding
LGA	Local Government Area
LSHTM	London School of Hygiene and Tropical Medicine
MDG	Millennium Development Goal
MNCHW	Maternal Neonatal Child Health Weeks
OPM	Oxford Policy Management
OTP	Outpatient therapeutic programme
ORIE	Operations Research and Impact Evaluation
PHC	Primary Health Care
R	Respondent
RUTF	Ready to Use Therapeutic Food
SAM	Severe acute malnutrition
SCI	Save the Children International
SMOH	State Ministry of Health
UK	United Kingdom
WINNN	Working to Improve Nutrition in Northern Nigeria
WHO	World Healh Organization

1 Introduction

The number of reported infant and maternal deaths, in Nigeria, is one of the highest in the world, and is second only to India [1, 2]. Within Nigeria the under-five mortality rates range from as low as103 and 176 reported deaths per 1000 live births in the south-east and south-west zones, respectively to 260 and 276 reported deaths per 1000 births in the north-west and north-east zones, respectively [3]. Further, the reported reduction in under-five morality between 1990 and 2010 of 2% was well below the targeted 10% reduction per year required to meet the 2015 Millennium Development Goal 4 (MDG 4) [4]; which meant Nigeria's progress towards achieving MDGs 4 and 5 is classified as insufficient[5].

In response, the UK Department for International Development (DFID) provided support for three direct nutrition intervention programmes in five selected states in northern Nigeria through its Working for Nutrition in Northern Nigeria (WINNN) programme. WINNN is a 6-year 50 million Pound DFID-funded development project based in the northern Nigerian states of Katsina, Jigawa, Kebbi, Zamfara and Yobe. It focuses on improving the lives of over 6 million children through key high impact nutrition interventions; namely:

a) Delivery of effective treatment for severe acute malnutrition through local health systems in selected states and local government authorities (LGAs) in northern Nigeria via its Community Management of Acute Malnutrition (CMAM) programme

b) Integration of micronutrient interventions into routine primary health services through its Maternal, Neonatal and Child Health Weeks (MCHNW),

c) Delivery of effective Infant and Young Child Feeding (IYCF) interventions in selected states and LGAs in northern Nigeria, and

d) Strengthening of nutrition coordination and planning mechanisms at National and State levels.

A key challenge for improving nutrition, in northern Nigeria, is the successful implementation of programmes at scale. To help address these challenges, a series of operations research studies is being undertaken to help determine how to strengthen the DFID supported CMAM, MNCHW and IYCF programmes. This operations research aims to identify the reasons for key bottlenecks, which have been identified by WINNN, to successful programme implementation and to make recommendations on how to mitigate them. Ultimately, this series of studies aims to strengthen programme delivery and increase utilisation/ beneficiary demand to enhance programme scale-up.

In this report, results from the second series of operations studies, which has focused on the CMAM programme, are presented. This series of studies has focused on understanding the reasons for not presenting to or defaulting from the CMAM programme and on ways to strengthen its implementation at the LGA level to ensure its continuity, sustainability and successful integration into the primary health care system. In the next two sub-sections of the introduction, the CMAM programme is briefly described and the study aims and objectives are presented. In subsequent sections, the research methods, study results, their interpretation and recommendations are presented. Detailed descriptions of the study results are presented in the appendices.

1.1 The CMAM programme

The treatment and prevention of severe acute malnutrition via the Community Management of Acute Malnutrition programme is one of four outputs of the DFID-funded development project (WINNN). This output aims to deliver, in the five WINNN supported northern states, effective treatment for severe acute malnutrition through local health systems. WINNN is implemented by

UNICEF, Action Against Hunger (ACF) and Save the Children International (SCI), in partnership with the five state governments. SCI is responsible for its implementation in Zamfara, Kebbi and Katsina states, and ACF is responsible for its implementation in Jigawa and Yobe states.

The CMAM services include:

(1) Community outreach, using community volunteers, for the early identification and referral of severe acute malnutrition (SAM) and later follow-up;

(2) Outpatient care for children with SAM without medical complications at health facilities and at home (Outpatient Therapeutic Programme, OTP);

(3) Inpatient care for children with SAM, and medical complications or no appetite (Inpatient Therapeutic Programme, ITP).

Each of the five WINNN states implements the CMAM programme in three LGAs. The CMAM services are currently provided in 79 OTP centres (20 in Zamfara, 15 in each of Kebbi, Jigawa and Yobe, 14 in Katsina) and 15 ITP centres (4 in Zamfara, 3 each in Kebbi, Katsina and Yobe, 2 in Jigawa) across the 5 states. Jigawa and Zamfara were the first of the 5 WINNN states to commence providing CMAM services (in 2012). Kebbi, Yobe and Katsina commenced the CMAM programme in 2014. As of April 2014, the WINNN CMAM programme had admitted 58,515 children aged 6-59 months, which exceeded their cumulative target levels by 46%.

The key components of the CMAM programme are early identification of children with SAM by community volunteers to allow home-based management of severe acute malnutrition with ready-to-use therapeutic food (RUTF). Its use, for standard treatment of SAM, is based on evidence that severely malnourished children do not require hospital admissions unless they are suffering from acute complications [9]. Home-based management of SAM, for families, reduces time and financial burdens associated with the treatment of SAM; and helps eases health care system budgetary constraints [9].

RUTF, itself, is an energy-dense, fortified (with vitamins and minerals) lipid-based spread that is given to children with SAM in a dose of 175-200 kcal/kg/day [10]. Its ingredients and vitamin/mineral content can be modified to meet local needs. The original RUTF (called Plumpynut) was a peanut butter based spread, which was formulated to have a nutrient content similar to the WHO liquid milk-based formula – F100 – whiach was used for rehabilitating severely malnourished children [11]. It has a very low water activity, which means it can be stored and eaten at home with low risk of microbial contamination or insect infestation; and its added nutrients are protected from oxidation. It can be eaten directly from the package or mixed in with food. Its high energy density and sweet taste make it palatable for young children [11].

The CMAM approach itself is a relatively new initiative, for the treatment of SAM that was recently endorsed by the United Nations in 2007 [6]. It is a cost-effective, high impact programme for reducing child mortality in resource constrained countries [7]; however its successful implementation and scale-up is constrained by weak health systems, limited budgets, and factors specific to given environments. Understanding these context specific factors is important for successfully adapting and scaling-up the CMAM programme in specific settings [8].

1.2 Overall Aim

To determine how to strengthen the CMAM programme to ensure high coverage, low default rates and its continuity, sustainability and integration into the primary health care system.

1.3 Specific Objectives

1. To determine opinions and perceived benefits of the CMAM programme amongst mothers and fathers of CMAM beneficiaries, and programme functionaries
2. To identify the common reasons for beneficiaries not presenting to or defaulting from the CMAM programme and the challenges they face in accessing CMAM services
3. To understand what is required to ensure workloads of HWs and CVs are manageable, and their motivation and long-term commitment to the CMAM programme remains high
4. To understand what is required to successfully integrate CMAM into the primary health care system

2 Methods

2.1 Study Setting

The CMAM study was conducted in two of the five WINNN states in north western Nigeria: Jigawa and Zamfara States.

2.1.1 Jigawa State

Jigawa State with Dutse as its state Capital is one of 7 states in the north western region of Nigeria. Jigawa borders Kano to the southwest, and Katsina to the northwest, Bauchi State to the southeast, Yobe State to the northeast. To the north, Jigawa shares a border with the Republic of Niger [12]. It has 27 LGAs which make up 5 emirate councils. Its population is about 4.3 million (2006 census) with an annual growth rate of 3.5%. Primarily an agrarian state, Jigawa has a climate that is conducive for cultivation of staple food crops, livestock and fish production [12, 13].

Jigawa has a distinct health system - the Gunduma health system, which is based on the WHO recommended “District Health System”[14]. This system integrates both the primary and secondary health care services under one management and accountability structure, which is the responsibility of the Gunduma Health Board under the State Ministry of Health (SMOH). The overall structure decentralises services to the nine Gunduma Health Councils. Each Gunduma Council is comprised of 2-4 LGAs and is responsible for supervising all health facilities within the council [13, 14].

Jigawa state has high mortality rates and burden of diseases profile. Its maternal mortality ratio (MMR) is estimated at 2,000 deaths per 100,000 live births and the under 5 mortality rate is estimated at 98 per 1000 [14]. According to the September 2012 SMART survey, in Jigawa State, 56.2% of children under 5 years of age were stunted and 40.8% were under-weight, and the prevalence of SAM was 3.6% which the WHO classifies as a critical nutritional crisis[15].

2.1.2 Zamfara State

Zamfara State with Gusau as the state capital is one of 7 states in the north western region of Nigeria. Zamfara borders Sokoto State to the north, Kebbi and Niger States to the southwest, Kaduna State to the South East and Katsina to the East. It has 14 LGAs and 147 political wards. Its population is about 3,278.873 (2006 census) with an annual growth rate of around 3.2%. Over 80% of the State population is employed in the agricultural sector [16] and it has a climate that is conducive for cultivation of staple food crops [17, 18].

Zamfara state has high child mortality rates and a high burden of diseases profile. Its under-5 mortality rate is estimated at 143 per 1000[19]. According to the 2014 SMART survey conducted by UNICEF, in Zamfara State, 50.1% of children under 5 years of age were stunted, 31.1% were under-weight and the prevalence of SAM was 1.2%.

2.2 Study Ethics, Design and Sampling

2.2.1 Ethics

The study was approved by the University of Ibadan and University College Hospital Ethical Review Board, and by ethics committees from the Jigawa State Ministry of Health and the London School of Hygiene and Tropical Medicine. Informed verbal consent was obtained from all the participants.

2.2.2 Study Design and Sampling

The CMAM study was conducted, in March 2014, in two of the five WINNN states in north western Nigeria: Jigawa and Zamfara States. The data were collected through focus group discussions (FGDs; n=24) and in-depth interviews (IDIs; n=44). Focus group discussions (FGD) were held with mothers of CMAM beneficiaries and with community volunteers (Table 2.1). In-depth interviews (IDIs) were held with CMAM programme functionaries and fathers of CMAM beneficiaries (Table 2.2).

In each State, two WINNN LGAs were purposefully selected based on the presence of a WINNN CMAM programme. These LGAs were Gwiwa and Birnin Kudu in Jigawa and Bakura and Shinkafi in Zamfara. Within each LGA, FGD participants were purposively selected from four defined strata. These strata were defined by urban versus rural locations and communities with high to medium defaulter rates versus a low level defaulter rates (Figure 2.1). Within each stratum, homogenous FGDs were conducted. They were done across these strata with women who had attended CMAM OTP programme without defaulting (n=5 FGDs), women who had defaulted from CMAM OTP programme (n=3 FGDs), female CVs (n=8 FGDs) and male CVs (n=8 FGD).

Within each LGA, IDI participants were purposively selected to include State and LGA level officials and community leaders with a range of responsibilities for the CMAM programme at the State (n=4 IDIs) or LGA (n=5 IDIs) levels. The officials included the State Directors of Primary Health Care and State Nutrition officers, LGA Directors of Primary Health Care and LGA Nutrition officers. IDIs were also done with health workers who were involved in the implementation (n=8 IDIs) or management (n=8 IDIs) of the CMAM programme. IDIs were also carried out with husbands of women who had defaulted (n=8 IDIs) and those whose wives had never defaulted from the CMAM OTP clinic (n=8 IDIs).One IDI was conducted with a male CV and two IDIs with women who had defaulted from CMAM OTP programme because we could not mobilise the minimum number of participants required for a FGD, in some strata, with the male CVs and mothers who had defaulted.

Full details of the location, gender of the participants and number of FGD participants, for each FGD and IDI are presented in Annex A.

Figure 2.1: Sampling strata for FGDs and IDIs

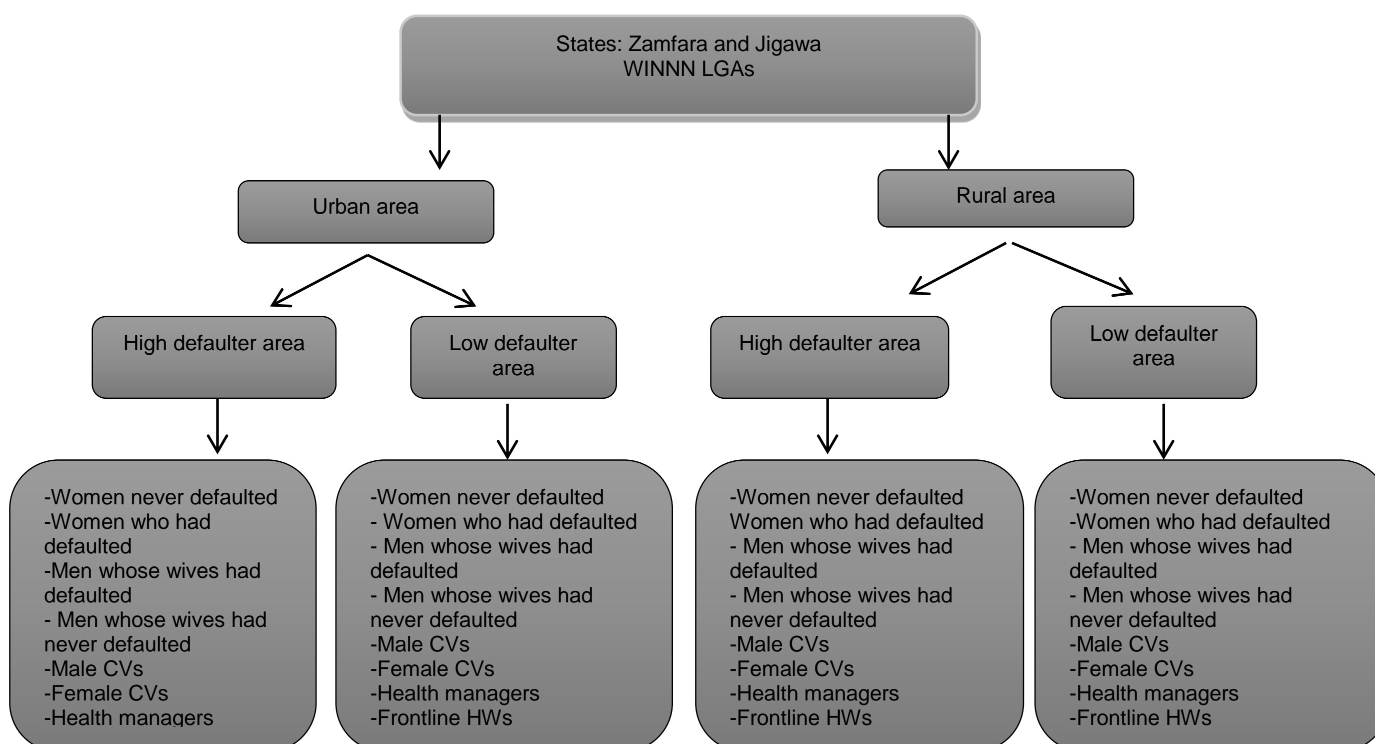


Table 2.1: Total number of FGDs conducted

FGD Strata	Number conducted
FGDs with women who had attended CMAM OTP programme without defaulting	5
FGDs with women who had defaulted from CMAM OTP programme	3
FGDs with female CVs involved in the CMAM programme	8
FGDs with male CVs involved in the CMAM programme	8
TOTAL	24

Table 2.2: Total number of IDIs conducted

IDI Strata	Number conducted
IDIs with government officials involved in the CMAM programme	9
IDIs with health workers who coordinate the CMAM programme in their clinics (Health Managers)	8
IDIs with health workers who provide CMAM services in their clinics (Front line health workers)	8
IDIs with husbands of women who had defaulted from the CMAM OTP clinic.	8
IDIs with husbands of women who had never from the CMAM OTP clinic.	8
IDI with Male CVs involved in the CMAM programme	1
IDIs with Women who had defaulted from CMAM OTP programme	2
TOTAL	44

2.2.1 Data collection and management

Theme guides were developed for each FGD and IDI category (Annex B). These theme guides were pre-tested in a pilot study and further refined before use. The data were collected by eight field workers (four men and four women) who were from Jigawa State, Northern Nigeria and fluent in speaking Hausa and English. They were trained by experienced qualitative research trainers from Food Basket Foundation International (FBFI) and Oxford Policy Management (OPM). They were supervised on a daily basis by the study co-ordinator (CYD) from OPM and another trained qualitative researcher (one man) from FBFI.

The IDIs and FGDs were conducted in Hausa or English, depending on the participants preferred language of communication; and recorded using a digital recorder (Olympus Digital Recorder VN-711-PC) after verbal consent had been obtained from the participants. Field notes were also taken during the FGDs and IDIs. At the end of each day, these notes and recorded interviews/discussions were reviewed by the supervisors to ensure data quality, identify unanticipated emerging themes to explore through additional IDIs or probing and to provide individual advice on how to improve subsequent IDIs and FGDs.

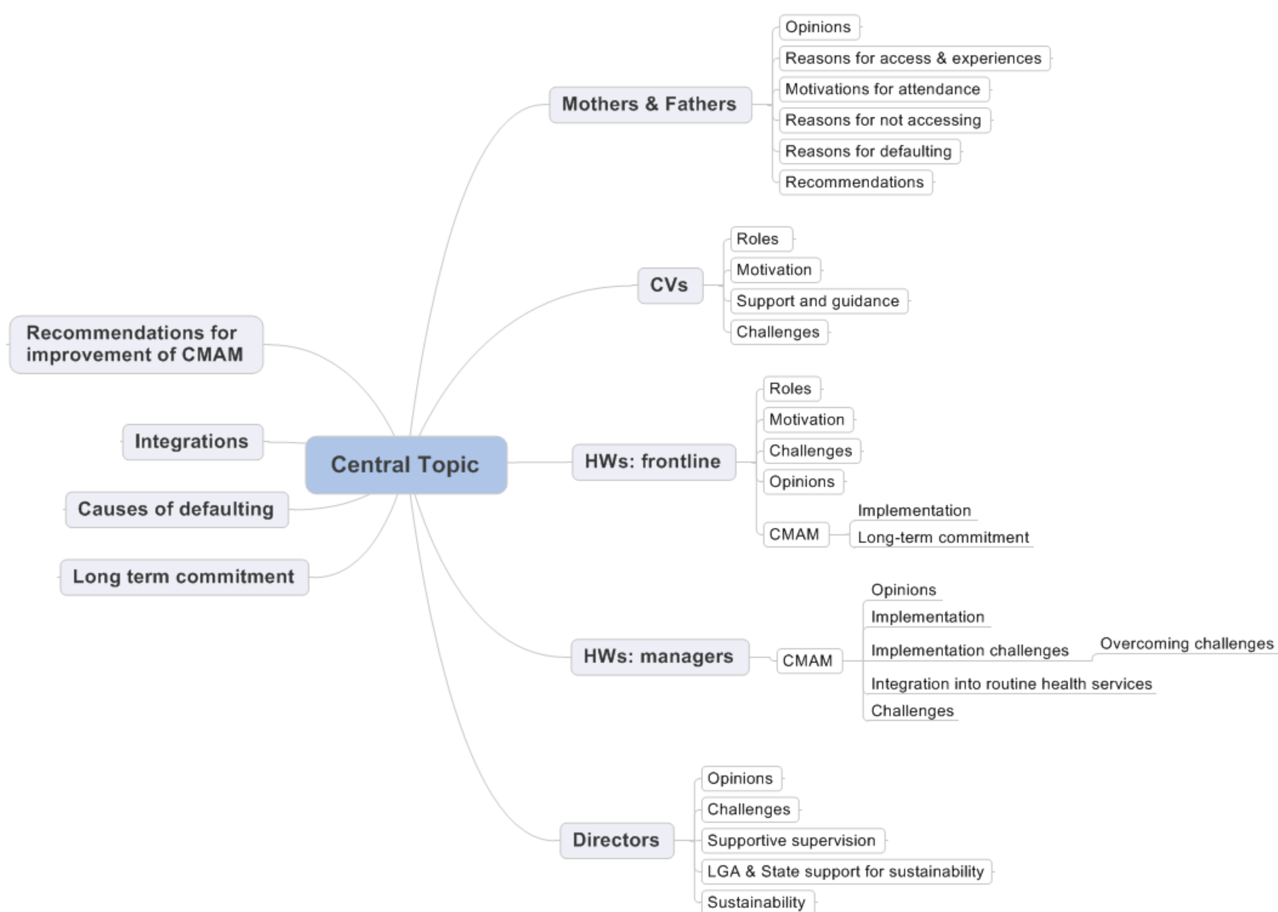
All FGDs and IDIs, which had been conducted in Hausa, were first translated into English. All FGDs and IDIs were transcribed verbatim by 4 independent and experienced translators/transcribers who were fluent in both Hausa and English. All transcribed data were de-identified and given labels based upon their FGD strata, person numbers within the FGD, and numbered interviewee in the IDIs.

2.2.2 Coding and data analysis

Data were transferred to NVivo 10 for coding by the study co-ordinator (CYD). In this process, each of the transcribed FGD and IDI were labelled using consecutive numbers to ensure easy identification and referencing. A primary coding framework was developed by two members of the research team (JW, CYD) based upon the objectives of the study including: opinions about the CMAM programme, challenges related to the programme and recommendations to strengthen it; and for women and husbands, the reasons for attending, not accessing or defaulting from the programme; for CMAM programme functionaries, their roles, motivation, support and guidance; and for HW managers and directors, its integration into the primary health care system and sustainability (see Figure 2.2). During data coding, the primary coding framework was expanded to incorporate newly emergent themes.

The second stage of the analysis, in which data were further synthesised, was carried out by four members of the research team (JW, CYD, OA, EF). As a group, the research team compared themes across interview strata (i.e., government officials, women who had never defaulted, women whohad defaulted, husbands, CVs and health workers) in order to assess and synthesize the perceptions and experiences of these different groups of people.

Figure 2.2: Primary coding framework



2.2.3 Quality Control

To ensure the quality of data collection, fieldworkers were extensively trained in the field on FGD and IDI techniques and pre-tested theme guides were used for the FGDs and semi-structured interview guides were used for the IDIs to ensure the desired information was collected. A pilot study was carried out to test the FGD theme and IDI interview guides and for the fieldworkers to familiarise themselves with the study topic and tools. The pilot study results were reviewed results by the trainers and other members of the OR research team and adjustments were made to the theme and interview guides. During the data collection, discussions were held with fieldworkers on achieving more depth in the FGDs and IDIs.

To ensure objective data capture, all FGDs and IDIs were digitally recorded and reviewed daily by the study co-ordinators (CYC and HL). All recorded data were translated and transcribed verbatim by transcribers who were fluent Hausa and English. A member of the study team (CYD) who is also fluent in Hausa and English listened to a sample of the recordings and read through the transcripts to ensure that the translation and transcription were properly carried out.

To reduce subjectivity, in the data analyses, the data were analysed by a team of four people (JW, CYC, EF, OA), including two Nigerians and two non-Nigerians. One of the four (CYC) was involved in all phases of the data collection and analyses. A draft report was also circulated to WINNN, for

review and comment; and a face-to-face meeting was held with WINNN on September 1, 2014 to discuss the results before it was finalised for general distribution.

3 Results

The planned total of 24 FGDs and 44 IDIs were conducted with mothers and fathers of CMAM programme beneficiaries, community volunteers, and State and LGA level officials (Annex A). A total of 228 participants were involved in the study.

Themes and sub-themes for each objective are summarised in Annex C. In the sections below, selected narrative text is used to present them as they relate to each objective together with illustrative quotes. Participants in the IDIs and FGDs are referred to as respondents (R) in the narrative text. Analysis of the data found strong inter-state similarities in key stakeholder opinions in relation to the objectives listed above so the combined results are reported here. In instances where inter-state differences were noted, these were clearly stated.

3.1 Opinions about the CMAM programme and its frontline staff

The overall opinion about the CMAM programme was positive across all interview strata and across both states. The programme was trusted and well accepted even amongst those whose children had never been in the programme. Interviewees across all strata valued the visible and instant improvements in a treated child's health; and recognised that unlike traditional treatments, it was an effective treatment of malnutrition. For mothers, it was a relief to know there was an effective treatment for a severely ill child. Husbands and health workers thought it was well-run and valued the government / gave the government credit for assisting local communities. All interview strata felt the programme improved the community and led to progress.

There were, however, a few dissenting voices amongst those who were interviewed. One defaulting husband mistrusted the programme (i.e., thought its treatments resulted in infertility), did not believe it cured malnourished children and felt it was invasive when community volunteers came to his home. Although a health worker in Zamfara stated that there was no stigmatization associated with the programme, a lingering mistrust of the programme was reported as one of the challenges faced by the community health workers, especially in rural areas.

All interview strata of mothers and fathers, except one father, had a very high opinion of the health workers and the community volunteers working in the programme. They felt they were committed, honourable, trustworthy and hard working people who were respectful, accepting and friendly with the programme beneficiaries. The important role of community volunteers, for increasing community awareness about the programme benefits and mobilising women to attend it, was recognised by the women and frontline health workers. The husbands also felt it was important to have both male and female community volunteers because women can enter homes and advise women, whereas men can advise other men on the benefits of the programme. The only criticism of the CMAM programme, from the perspective of the husbands in Jigawa, was the lack of continuity of health workers working in the programme because health workers are regularly transferred across health facilitates across the state. This view was also voiced by frontline health workers, in Jigaawa, as one of the challenges, especially when trained CMAM staff members are replaced by untrained ones. However, overall the health workers (frontline and managers) valued their important and supportive role within the CMAM programme because its benefits for child health were immediately visible.

Box 3.1: Illustrative quotes for opinions of the programme

R: "Well if I describe to you what I do, there is no program we do that has gained lot of acceptance by the people like this one. Example when they brought the nets it further called the attention of pregnant mothers to come to the hospital. But sincerely, there is no service we provide in the hospital that brings people like this." IDI16 (Health Manager)

R5: "Even the ones that don't bring their children also see how useful it is." FGD6 (Mothers defaulted)

R3: "It is the transforming effect not only on the children but their mothers as well. When a child is looking so malnourished and weak the mother will not be looking good as well. But after receiving the tamowa food and taking it as prescribed both mother and child look better and everybody is happy." FGD9 (Female Community Volunteers)

R "I told you this earlier, I don't know anything about this Tamowa (malnutrition) programme. I don't support the programme. When she left home the day of that programme she would not come back home on time. So I feel was not just the programme she attended..... I don't know, she brought the plum peanuts home the other day it was looking like salt and I don't want anything that will reduce my child fertility in future." (IDI2_Father of default; Zamfara).

R2: "What attracted me to this programme is before the coming of this milk if you see some children, you would almost cry for them. But as this milk came, children have survived. If you see them behind their mothers, you won't believe that they are from the country side." FGD22 (Male Community Volunteers)

Box 3.2: Illustrative quotes for opinions of health workers and CVs

R: "Ahh, there is nothing I will do except prayers, because these are good representatives that are also honourable, the health workers and the volunteer groups of the place, they handle materials brought to them honestly for the benefit of the people of (mentions name of community). This is one of the reasons why we are praying and telling others to come there, because of the honest way materials are handled." (IDI2_Father of default; Jigawa)

R1: "They don't look down on us, they don't humiliate us, they don't shout on us, when we come they welcome us with open hands. They will bring some water and show us how to do this and that with no problem. They have never maltreated us or humiliated us and they advise us on how to take care of our children." FGD6 (Mothers defaulted)

R2: "They go house to house telling us to bring our sick children, the malnourished ones. We have some volunteers that go around house to house looking for malnourished children, when they see a sick child they examine the child and if the child is malnourished they will give us a piece of paper and tell us to come to the hospital. FGD7 (Mothers defaulted)

R3: "They also enlighten us at wedding ceremonies or naming ceremonies, they tell us to help ourselves and our families by bringing sick children to the hospital." FGD7 (Mothers defaulted)

R: "Sincerely this programme is compulsory with the CVs because it is a huge work which I think it cannot be run without them, because if they are not part of it I don't think the health workers we have can alone coordinate/run this programme without the Community Volunteers." IDI18 (Frontline health worker)

R: "The work they do, between man and God, they work together and there is no problem except sometimes, they are many in the unit such that they are asked to shift, these ones come this week, next week others come." (IDI3_Father of non-defaulter Jigawa)

R: "I don't buy the idea of people coming to start talking to my wife under the pretence of children's health or that they are health volunteers. Let me ask you, would you like it when people just invade your house and start talking to her? (IDI2_Father of default; Zamfara)

3.2 Benefits of the CMAM programme

The benefits of the CMAM programme perceived across all interview strata were its positive impact on child health and the education women received about the causes of malnutrition and other health issues. The benefits of the programme were perceived to outweigh the challenges.

The programme helped the community understand the causes of malnutrition and accept it as a treatable illness. Its value for saving child lives and eradicating severe acute malnutrition, in the communities, was recognised by community health workers. It also saved health costs, as an effective and free treatment (at least all OTP services/treatments). Other important benefits, as perceived by community volunteers and health workers, was it encouraged increased health facility attendance to the benefit of child health, improved relationships between health workers and the community and increased the status of health workers within the community. It brought severe acute malnutrition into the limelight, for the community, encouraging them into the health care system and away from traditional healers and herbalists. It also resulted in health benefits over and above the treatment of severe acute malnutrition, as perceived by mothers, health workers and government officials, because other health problems were detected and treated through health facility visits, and mothers were educated about general health issues. Health workers also thought CMAM improved understanding / relationships amongst different health service providers.

There was a perception that CMAM is well integrated with other programmes, in the health care system, and particularly with childhood immunisation. Respondents were positive about this integration because along with the ready-to-use-therapeutic-food (RUTF) and treatment drugs. other interventions were delivered on CMAM days. This includes health education and advice on specific preventive behaviours such as antenatal advice for mothers, hygiene education, infant and young child feeding (IYCF), family planning and HIV counselling. These interventions were perceived to contribute to an overall improvement in maternal and child health status in the community through the prevention, detection and treatment of other illnesses as well as SAM. For SAM, the benefits were highly valued by mothers, respective of whether they had or had not defaulted, because they observed a visible and instant difference in their child's health and activity level as soon as RUTF was used.

Box 3.3: Illustrative quotes for benefits of the programme

R1: "He got better as he was able to sit down and to walk a little, we were very happy he got better after taking the medicine (malnutrition paste). After they gave him the injection to stop the vomiting in the early stages he ate all the paste. In the beginning he was vomiting but after I started giving it to him he stopped. Now he doesn't do anything." IDI44 (mothers defaulted)

R7: "When my daughter felt sick because of Tamowa (malnutrition) and my friend advised me to take her to the programme, since then, it seems I just got an instant solution to the rashes, diarrhoea and other symptoms that have been disturbing her. The health officers in charge of the programme prescribed free drugs and also gave me plum peanut milk to always give the child and now she is okay." FGD3 (Mothers never Defaulted)

R6: "My motivation is the enlightenment and the lifesaving information we got from training and how people look up to us every day for some new information about the programme." FGD10 (Female CVs)

R: "The programme is useful to those who have health related challenges especially in the aspect of malnutrition. If the programme is able to address these issues of malnutrition (Tamowa) in the community, then the programme is effective and useful. We all have benefited in so many ways from this programme. Ah ….. regarding, parents attribute the issue of malnutrition (Tamowa) to be witch craft, demons, or evil spirit, because a child is eating and yet the child grows thin, but once the parent bring the child to the hospital, it takes two to three weeks for the child to regain his normal body weight and to be sincere and honest this particular programme is useful to our people." IDI10 (health manager)

"Then secondly it has encouraged togetherness amongst the health workers and he people in the community, because the people in the community have now gotten what they never expected, and for that, the health workers are now Seen with much respect. That is why there is trust between the health workers and the people in the community and it isn't because the work is only for (mentions place) or (mentions place) No it even includes our neighbouring communities (mentions place) They also know we do hold this program they also range from (mentions people) it involves every one with a problem when brought from The bush and given treatment they get well." IDI14 (health manager)

"Because of seeing its importance and also how people turnout/come out because of it. Appointment days for this hospital are Wednesdays and Thursdays. Wednesdays and Thursday are the days the hospital experience highest attendance and this is as a result of the impact of the nutrition programme (tamowa). " IDI18 (frontline health worker)

3.3 Reasons for attending the programme and experiences

The overwhelming reason for attending CMAM, as expressed by women and husbands, were the health benefits of the programme for severely malnourished children and the free and effective treatment received at the OTP. Critical for attendance was the permission and support (i.e., financial and/or encouragement) from husbands; and the accessibility of CMAM either via proximity to a CMAM facility, or, for those living at a distance, the availability and ability to pay for transport. Women were motivated to bring their child to the CMAM programme when they perceived their breast milk was inadequate or when their child was ill or repeatedly ill. Husbands felt the women were also motivated to attend because they enjoyed the social interaction of attending the programme. The government officials were the only interviewee strata that reported health education and monthly meetings with health workers/community volunteers as motivation for

attendance. However, all interviewee strata had reported education was a benefit of the programme.

Attendance at CMAM was perceived as the responsibility of the husband. Word-of-mouth from peers was an important pathway through which husbands heard and understood the benefits of CMAM; although the influence/support of community leaders and community volunteers/health workers also influenced attendance and some men learned of the benefits of the programme through the mass media. In-laws appeared to have less influence on attendance than husbands other than providing financial support for transport when needed.

Box 3.4: Illustrative quotes for reasons for attending the programme and experiences

R: "The reason they take these little children for the malnutrition program is, some of the reasons is that; at first we didn't understand the reason why children were always losing weight, and when this happens, they soak so many things and give them. so when they brought this program of malnutrition that is when they explained to us how it is and when they come, it will be okay and they showed us the picture of a girl child in that state and then after when we confirmed that process, we joined the campaign that anywhere we see that girl or boy, we will try to tell the father or mother with such a child to bring the child to the hospital here in (mentions name of town, every Thursday they bring him and weigh him on a scale, and his weight has reached a particular, since we don't know what is happening. If it is confirmed, that is when they will bring that medicine for malnutrition and give the child, and to the Glory of God, there is progress 100%, and every child they bring, because if it is sold, definitely it will be sold expensive, but it is given free." (IDI1_Father of default; Jigawa)"

R: "Ah ah, hmmmm, there are a lot of differences between this programme and others in the sense that this programme is free without paying for any cost considering the poverty that is prevalent in our communities and once people know that treatment and services are free they will be happy" IDI10 (Health Managers)

R2: "(Women come every week) because they have something (vehicle) to bring them here or the town is not far" FGD5 (Mothers never defaulted)

R4: "Whenever I tell him that I want to bring my child, he tells me to go and come back in peace.
R5: Let him always approve my coming here. " FGD8 (Mothers defaulted)

3.4 Reasons for not accessing or defaulting from the CMAM programme

The barriers to attendance / reasons for defaulting were similar and occurred at the individual, community/cultural, environmental and health systems levels as summarised in Table 3.1. The mothers / fathers of CMAM beneficiaries reported more individual level barriers than other interviewee strata, especially personal barriers that could be addressed via CMAM programme education/communication efforts. The barriers to attendance most often reported across all interview strata were distance to a CMAM facility, lack of transport or husbands who discouraged, forbade or did / could not provide transport money for their wives to attend and stock outs, especially of RUTF. For defaulting, most interview strata perceived that stock outs (especially of RUTF), lack of transport, distance to the CMAM facility, lack of money for transport, a perception that the child was healthy or the death of a child were important reasons given.

Of these barriers, lack of transport money, stock-outs of RUTF and a perception that the child was healthy were important and synergistic. A husband will be less likely to provide transport money, if

his wife has direct experience of or there are rumors of RUTF stock-outs; and/or if there is a perception that his child is no longer critically ill. Direct experience of RUTF stock-outs were reported by mothers and fathers of CMAM beneficiaries and HWs. For HWs, they had experienced occasional stock-outs of either drugs or RUTF; which for them was a concern, given the financial strain of attendance for some CMAM programme beneficiaries. A constant and adequate supply of drugs and RUTF was perceived as important for establishing trust in the programme.

There were other barriers, for not attending / defaulting, reported by one or more of the interviewee strata that also occurred at the individual, community or health service levels. At the individual level ignorance of the benefits of the programme, distrust of either the programme (i.e., RUTF) or their wives motivations for attending it or lack of money for transport were the reasons perceived for husbands discouraging or forbidding their wives attendance. Mistrust of the true purpose of RUTF (i.e., negative impact on the child's fertility), its safety or its side effects were barriers to attendance reported by women / one husband. The husbands also reported that some children refused to eat RUTF.

There were also barriers related to family circumstances, as reported by husbands and/or women, such as ill health or death of the child's mother, competing commitments, such as ceremonies or family obligations for the mother, birth of another child or lack of child care support when they had too many children to bring them all. Certain personality characteristics were also attributed to non-attendance/ defaulting; for example, husbands and women thought that women who were lazy or parents that did not care about their children, especially when mothers became tired of bringing her child, were less likely to attend. Ignorance of the programme's benefits was thought to contribute to such carelessness. Mothers who had defaulted from the programme also stated they had been ignorant about the reasons it was important to complete the treatment regime.

Only women reported feeling shame in having a malnourished child as a barrier to attendance; whereas health workers did not believe there was a stigma to having to attend CMAM. Health workers should be made aware of this sensitivity as inadvertent comments may have the affect of discouraging rather than motivating attendance. Only the husbands reported environmental barriers to attendance, especially in Zamfara, such as seasonal flooding or poor security, and health systems barriers such as strikes or restricted hours of distribution.

At the health systems level, the long waiting times, because of the high workload on CMAM days were perceived as barriers to attendance by health workers, whereas the related barrier, for women, was a lack of shelter / shade and the husbands did not think waiting time was a barrier. They thought their wives enjoyed the social interaction. Some women were also told they could not receive RUTF because they had defaulted or had lost their admissions card. A government official thought default rates were likely inflated because of errors in the equation's denominator, and that a lack of community volunteers to follow-up defaulters contributed to default rates.

Table 3.1: Reasons for not attending or defaulting

Level	Barriers to attendance and defaulting	Interview Strata				
		M[1]	H[2]	CV	HW	G[3]
Individual	- Perceive child's health has improved - Ignorance - Side effects of RUTF (vomiting/diarrhoea) - Mother's ill health / death /depression - Mother is tired of bringing her child / lazy - Mother has other commitments / travelling - Child's death - Child's health does not improve - Child will not eat RUTF - Cannot carry all children with SAM - Birth of another child - Does not follow instructions - Negative rumours about the programme - Distrust of programme - Shame / pride	x x x x x x x x x x x x	x x x x x x x x x		x x x x x	x x x
Community/cultural	- Lack of husband's permission - Divorced so moves away	x	x		x	x
Environmental	- Lack of transport - Cost of transport - Flooding / season - Poor roads - Security - Distance to health facility	x x x	x x x x x	x x	x x x	x x
Health Systems	- Stock outs - Waiting times - Lack of shelter at facilities - Lack of CVs - Strikes - Hours of distribution - Admission card lost - Told would not receive RUTF if defaulted - From other catchment areas	x x x	x x x		x	x x

[1]M-mothers
[2]H-husbands
[3]G – government officials

Box 3.5: Illustrative quotes for reasons for not accessing or defaulting from the CMAM programme

R: "The problems are, when someone finds himself very far, some find themselves in this place as far as (mentions names of towns), like I am telling you, (mentions name of town). Some are struggling to bring themselves, transport to bring themselves, because some of their husbands do not even have what to eat that day, talk more of paying their transportation. This is why some fail to come but not because they don't want to." (IDI2_Father of default; Jigawa).

R: "I told you this earlier, I don't know anything about this Tamowa (malnutrition) programme. I don't support the programme. When she left home the day of that programme she would not come back home on time. So I feel was not just the programme she attended. R: I don't know, she brought the plum peanuts home the other day it was looking like salt and I don't want anything that will reduce my child fertility in future." (IDI2_Father of default; Zamfara)."

R1: "Some is as a result of laziness, while some are very busy. We thank God that we are beneficiaries of this program." FGD5 (mothers never defaulted)

R2:" Some their husbands discourage them." FGD5 (mothers never defaulted)

R: "Indeed there is no problem greater than this [money – suggested by interviewer] because anyone who comes today and does not get [plumpynut], a week later he does not get; as poor as some are they spend up to 600 naira in one day, just for transportation, apart from their feeding, apart from the work they left undone at home. This is among the things [stock outs] that discourage people but if government or this organization will continue to bring it without failing, God willing, this too will disappear." (IDI2_Father of default; Jigawa)"

R: "You know some people may go to the hospital, then after being given drugs they start feeling better and They now start having the feeling that they are now well and back out Of the treatment, that is one of the things that cause it." (IDI1_Father of default; Zamfara

R: "Ah, well the main reason why some don't stay to the end of their treatment is because of the number of people that attend this programme." IDI10 (Health manager)

R: "You see during rainy season, some people attend to their farm work and also we have flood which as a result make difficult for people to come here. Also spend more than a thousand naira to come here so any day that they have money for transport, they do not come as a result increases the number of defaulters." IDI15 (Health manager)

3.5 Integration

The overall perception of respondents was that CMAM is already well integrated with other programmes and particularly with childhood immunisation. This feeling was expressed by mothers, both those who had and had not defaulted from CMAM, frontline health workers and their managers and by government officials. The reason that respondents were positive about integration was mainly that other interventions are delivered on CMAM days along with the RUTF and treatment drugs. Besides childhood immunisation and treatment of other infections that were mentioned as being delivered along with CMAM, other interventions were mainly about health education and advice on specific preventive behaviours including antenatal advice for mothers, hygiene education, IYCF, family planning and HIV counselling.

Box 3.6: Illustrative quotes for integration

R: "the CMAM now is being integrated in other- like in RI, Routine Immunization services which, you know........we use CMAM activities to immunize- to, you know, to immunize children, we use CMAM activities, you know, to treat malaria, we use CMAM activities just to treat other infections........through CMAM some of the health problems are being addressed silently." IDI1 (Government official)

R:" we also have the WASH people because you know you have to teach the mothers how to, how to do a proper hand washing, proper refuse disposal and sewage disposal. Then you ehm, with the birth registration, you know you can just get them there when they come for, to the CMAM site, then you will talk of the HIV counselling at the CMAM site and you can also see the pregnant mother during the, the, the CMAM days, because a mother can bring a malnourished child and she is pregnant." IDI4 (Government official)

A respondent from an LGA in Zamfara said that service delivery was specifically organised to facilitate integration of programmes for the ease of mothers and their children by providing them on the same day. This was also mentioned by mothers as they stated that their children were vaccinated on CMAM clinic days

Box 3.7: Illustrative quotes for integration

R: "you see immunization for instance come the same day with Tamowa (malnutrition), in order for us to bring all people in the same place to help us have more children who need treatment. Women who attend ante-natal clinic and lactating mothers are all combined to have more people to be treated instead of waiting for different days of all different programme. Ante-natal clinic and vaccination is done the same day to reduce the stress of going and coming the next day. Hospitals should be equipped with facilities to examine pregnant women, lactating mothers and high blood pressure; all these should be done at the same time and day." IDI9 (Government official)

R3: "The same with the others, when it is time for vaccinations, I bring my children and they get vaccinated. When I first came with my daughter to collect the paste she was vaccinated. "FGD7 (Mothers who Defaulted)

Integration of CMAM into other programmes was less common than the integration of other interventions into the CMAM programme, although it was suggested that it may be appropriate to deliver CMAM along with measles and polio immunisation campaigns. This integration, however, may not be as feasible / appropriate. Immunisation campaigns particularly polio, rely on cadres of health workers or volunteers who may not be of the right educational background to be effectively trained to assess a child's nutrition and infectious disease status and make decisions on enrolling them into the CMAM programme or recommending treatment. Integration of other interventions into the CMAM programme, as currently practiced, would appear to be the best approach. Although our findings suggest this practice is quite widespread it has not been quantified in this study. Integration of of other programmes, such as of immunisation, into the CMAM programme might increase, or have the potential to increase its coverage given the positive perceptions of CMAM in the community. Childhood immunisation is very low in both of the States in this study (3.6% and 2.1% of children 12-23 months of age covered with the 4 basic EPI vaccines, Jigawa and Zamfara, respectively) [20]. It also triangulates well with the perception that CMAM brings people into the primary health care system. Although some respondents, in Jigawa, felt that CMAM should not be integrated with other programmes because of its high workload burden on an

already understaffed health facility. Perhaps successful programme integration will depend on contextual factors in a a given health facility; emphasising the importance of montitoring it to ensure programme integration does not jeoprodise the quality of both programmes.

Box 3.8: Illustrative quotes for integration

R: "the way it's moving, the way CMAM is moving, the way the programme is moving it has already been integrated in the health programme; yes it has already been integrated because let me tell you one thing ah... the way people are receiving, the way people are receiving- now WHO or other organisation that are more concerned with immunisation are now using our CMAM sites to capture children."IDI5 (Government officials)

When questioned on integration the respondents focussed on service delivery rather than other aspects of the intervention that could be integrated such as supplies of RUTF / treatment drugs and training of health workers. At the moment the focus of training is only on health workers in health facilities currently delivering CMAM services and the procurement of supplies does not appear to be integrated with other programmes. The integration of CMAM training into a standard HW training syllabus might help to reduce the number of untrained HWs in CMAM health facilities, especially in States where HW deployment is common.

3.6 Sustainability

The most striking finding from this study was the difference between Jigawa and Zamfara States regarding CMAM programme sustainability. In Zamfara, significant steps have been taken to provide state and LGA-level financial support to CMAM. The 14 LGA chairmen of Zamfara State each provide a specific amount of funding per month to support the purchase of treatment drugs, transport of RUTF, and small scale infrastructure in health facilities, such as improved water sources. These funds are also used to support community volunteers. This state/LGA-level financial support, for CMAM, was perceived to sustain a constant supplies of treatment drugs, which is essential for long term programme sustainability.

Box 3.9: Illustrative quotes for sustainability

R: "in those days ....it used to be drugs issue of drugs but ah that is becoming a history we are beginning to solve that problem now, because at the government, out of the money I made mention government is contributing, local government are contributing." IDI5 (Government official)

The key factors contributing to CMAM programme sustainability in Zamfara State, as perceived by government officials, include: 1) a basket fund to which money is regularly given by the LGA Chairmen. This basket fund was originally established for immunisation but state-level agreement has been reached that it can also be used for CMAM and other nutrition activities; 2) a meeting was convened in Abuja including the 14 LGA Chairmen, the commissioner of local government and chieftaincy affairs, and the commissioner of the Ministry of Health. The meeting was supported by UNICEF. 3) the awareness raised with both the LGA Chairmen and the Emir on the number of children who have benefitted from CMAM and the amount of support that has been given by partners; 4) the visibile impact of CMAM on children; and 5) its value,for the community, such that they wish it to be sustainable and to own it.

In Jigawa there was perceived to be little support at the State and LGA level for CMAM except in local transport and loading of the RUTF.

As well as overall financial support, CMAM programme sustainability also relies on a well trained health force. Whilst strides have been made regarding Nigerian government financial inputs into the CMAM programme, netiher State or LGA-level governments have taken ownership of health worker training for CMAM; instead, HW training is led by WINNN in both States.

Box 3.10: Illustrative quotes for sustainability

R: "They bring the malnutrition program from UNICEF; the Federal Government brings the paste to (mentions town). When they bring it the States also puts some money in the program, they put money inside the program so that they can get the paste. The Local Governments are also in charge of going to the State Government to collect the malnutrition paste and to bring it back to the local Governments and distribute it to hospitals." IDI7 (Government official)

R: "Truly there is no any assistance for training that has been given by the local government except that which the organisation [WINNN] is giving." IDI8 (Government official)

3.7 Challenges

3.7.1 Service delivery challenges

The only service delivery challenge reported across all interview strata were RUTF stock outs, which was a concern given the distances travelled by some beneficiaries to receive RUTF. For mothers,although some reported they did not face any challenges, others reported service delivery challenges, such long queues/waiting times, crowds or refusal to treat their child. For health managers, service delivery access was considered an important challenge, for beneficiaries who lived a distance from the health facility, which resulted in late in the day arrivals, for CMAM, or defaulting from the programme.

3.7.2 Implementation challenges

Both the community volunteers and health workers reported challenges related to the material incentives provided to do their work (insufficient or not regularly given), heavy workloads and either inadequate equipment (mats, cups or weighing equipment) or facilities (water or storage facilities free of pests). Both interview strata also reported challenges with motivating mothers of beneficiaries of the CMAM programme although the nature of these challenges differed as described below.

3.7.2.1 Community Volunteers

Community volunteers (CVs) were perceived by all interview strata to be vital for the success of the CMAM programme. However, there were important disincentives for their role. They reported receiving almost no remuneration, and many had to leave their income generating activities to carry out CMAM duties, while at the same time incurring transportation costs. Male CVs in both states perceived that they were given insufficient responsibility on CMAM days, because they were not allowed to set-up equipment or access RUTF in preparation for the beneficiaries. Some felt the health system did not treat them fairly because it did not reward hard work (i.e., all CVs received the same remuneration regardless of the number of hours worked). Although, the CVs in Zamfara State appreciated efforts made to motivate them with occasional monetary tokens and sponsoring

one of the most dedicated CVs for pilgrimage to the Holy Land (Saudi Arabia), they felt more could be done to motivate CV participation in the CMAM programme. These de-motivating factors may create a reluctance to take on the role of CV by other community members, as was noted by some CVs and community leaders; because a reputation is growing that it involves hard work without rewards. CVs who continued to faithfully carry out their responsibilities did so because of their religious convictions, a desire to contribute to community development, and to save lives of children.

Other challenges reported by both male and female CVs were that they were ridiculed for working hard on the CMAM programme without financial recompensation. Challenges reported only by the male CVs were that they lacked influence on decisions made about the CMAM proramme, they felt under-utlised, they were not able to give their opinions about how to improve the services, they spoke about security issues (in Zamfara) and the disruption to their income generating activitites created by volunteering. Some female CVs also felt they did not have the level of education needed to do some of their work(e.g., weighing children) and training to do their work effectively (e.g., how to mobilise beneficiaries/defaulters). Male CVs also felt some of the tasks they had been asked to do were culturally inappropriate, such as male volunteers measuring the mid-arm circumference of a child of a woman he did not know. For the female CVs they relied on male CVs to speak directly with the husbands. Community volunteers also faced challenges in motivating women to attend the CMAM programme and in crowd control on clinic days, as the number of beneficiaries was overwhelming. To help them address these challenges they also felt they required active support in solving problems.

3.7.2.2 Health Workers

Government officials and health workers (HWs) in both States were concerned about the insufficient number of trained HWs in CMAM health facilities. To meet the high demand for CMAM, it is often necessary to recruit HWs from other facilities on CMAM days to manage the heavy workload; and HWs from other facilities did not always turn up as assigned or were not always trained in CMAM activities. Frequent HW redeployment also puts additional pressure on the CMAM programme, especially when CMAM trained HWs are replaced by those who are untrained. At the moment the focus of training is primarily on HWs in health facilities that are currently delivering CMAM services.

The health workers interviewed stated that they faced challenges in motivating women to comply/follow instructions most especially medical advice. They also stated that women brought children who did not qualify for treatment or they brought children on the wrong day or late in the day thereby increasing the work load.

In both states, it is intended that HWs collate monthly reports (and in some instances weekly reports) and send them to the appropriate authorities. However, the lack of mobile phone coverage to send these reports, and also the fact that several reports were required for several programmes, made these reporting expectations challenging to meet.

Box 3.11: Illustrative quotes for challenges

R2: "The only challenge is that if you dare come late you will stand for a long period of time before it gets to your turn. That is the only challenge." FGD5 (Mothers Never Defaulted)

R5: "Yes there is as we do not live nearby and we walk the whole way. Sometimes we will come and wait until 12 noon and if we are not lucky they will say it is finished and that we should go home. So you see you have suffered and you have left your work at home. Sometimes you come and wait all day and you will not get it, they will tell you that it has finished and you have a long distance to cover." FGD6 (Mothers who Defaulted)

R6: "We have had no difficulties in this program……. R6: None." FGD7 (Mothers who Defaulted)

R3: "We always have a problem coordinating them and we always tell them they should be patient and everyone will get. They start to fight and say some people are favoured. When there is a fight our supervisor comes out to say they should attend to those behind first. After 2 weeks of doing that, that they get more organized. That the only problem we have." FGD13 (Female Community Volunteers)

R: "Well for now we are four health workers that implement/run this programme, and the reason is that we are the only ones that have been trained on it. We are also faced with transfer issues as some staff are been transferred after been trained." IDI18 (Frontline Health Worker)

R: "Short "pause" ah, ah, hmmm, the hospital lack qualified and trained staff who are involved in the malnutrition programme (Tamowa) in the hospital. Another problem is the distance which people have to walk or cover to get here. There are also problems of lack of incentives and motivation to the Community Volunteers (CV)." IDI10 (Health Manager)

R: "Well such challenges exist. Staffs are not enough, and those that have been trained before are still the ones on ground as new ones have not been trained." IDI18 (Frontline Health Worker)

R: "The challenge, truly there is no challenge we face, but the biggest challenge is one; the reports are many, that is all, this one if from us, and apart form that there is none, we give the report on time, but when it is the end of the month, then our minds are divided and the activities are many the RI, ANC, CMAM, Malaria, (laughs)." IDI13 (Health Manager)

3.8 Recommendations

3.8.1 Recommendations for reducing defaulting

The main recommendations to reduce defaulting and increase attendance in the CMAM programme, as reported by all interview strata, were directed at the service delivery challenges and the need for a wide-reaching system of communication. Recommendations were made to develop mechanisms that would ensure adequate and regular supplies of RUTF/drugs and to use mass media (or other effective communication systems) to inform people about the programme's structure (e.g., days held) and its benefits. Stock outs, showing up on a non-CMAM day or having a child that does not qualify for treatment can result in non-treatment, which serves to de-motivate attendance, especially for beneficiaries coming from a distance. Mothers of beneficiaries should not be weighing-up whether or not they will receive treatment when making decisions about attendance.

Other recommendations made by most interview strata to reduce defaulting/increase attendance were to improve CMAM programme access and reduce resource barriers. They recommended, for example, providing beneficiaries with transport to the CMAM facility, increasing the number of CMAM facilities, and increasing the number of health workers and community volunteers working at the facility to reduce waiting times. Structural changes to CMAM facilities were also recommended by HWs and CVs to help improve crowd control, thereby improving the quality of the experience for programme beneficiaries.

Recommendations, to reduce defaulting/increase attendance, which were only made by mothers and fathers of CMAM beneficiaries were to show tolerance towards defaulters (i.e., re-enrolling them instead of sending them away) and providing mothers of beneficiaries with other incentives to attend (i.e., soap). Fathers of beneficiaries also recommended the provision of special incentives to help recruit female community volunteers because they felt women would be more successful in convincing their wives to attend/not default; and improving the transport infrastructure (i.e., roads and flood control) to minimise transport barriers to attendance, especially during the rainy season.

Box 3.12: Illustrative quotes for recommendations for reducing defaulting from the CMAM programme

R: "What should be done continually I would say is that we are pleading with the organizers to leave or avoid the shortage of that drug, that is the only thing, that is what will help the husbands to allow their wives or any support they can give them to come." (IDI1_Father of default; Jigawa).

R1: "Arrangements should be made for us to be able to contact the parents of those children ahead of time and tell them not to bother coming all the way here on the days the product will not be available. This is because some of them come from afar and spend a lot of time and money to get here only to find that the products are not available. They should provide us with handsets, recharge them and train us on how to use them to inform the people ahead of time." FGD9 (female Community volunteers)

R: "Well, even if they say that is how they will do it, except if they will add more staffs because we are few. If they ask us to do it every day, then they will have to increase the number of staffs, and if there are staffs, there is no problem, this is a program that can be done within a short time, and there is no problem." IDI20 (frontline health worker)

R: "Me, the advice I will give is this, if it is possible like the way this organization is taking responsibility for this programme, then it should take responsibility for transporting these people to come to this place to collect supplies. If it is possible this is what I see, there is nothing beyond government and this organization. If this is taken care of there will be nothing else except more prayers." (IDI2_Father of default; Jigawa)

R:"The advice I would give is; if given a chance, just as this organization has taken charge of providing this food, she should try to support by bringing those [transport] who cannot come for this program so that they can come and collect, if this is possible this is what I see, the government and this organization, there is nothing impossible for them to do, and if this is achieved then everything will be okay, just prayers." (IDI2_Father of non-defaulter Jigawa)

3.8.2 Recommendations to motivate CVs

The main recommendation to motivate CVs, suggested by most interview strata, were to provide material incentives to compensate them for the resources (time and money) they had to give up for the programme. Participants considered the current remuneration system unfair and felt it

jeopardised the long term sustainability of a highly valued programme. Other material incentives recommended by the CVs alone were to provide them with transport (i.e., motorcycles/bicycles) to help them reach defaulters.

Non-material incentives to motivate CVs were also recommended by both CVs and HWs. CVs valued learning additional skills / knowledge and the recognition gained through volunteering. Recommendations were made to increase the number of regular training sessions, provide job aids and strengthen supportive supervision. For example, monthly review meetings were recommended by CVs to discuss work-related issues and provide education on health issues related to their work. Enhanced skills would not only increase their confidence but would also help improve their status in the community, which was particularly important for female CVs.

Recommendations were also made by CVs to reduce their workload or minimise its impact on their livelihood activities. Specific recommendations were to rotate duties across a number of CVs so they did not work every week, and to provide farm help so their livelihoods would not suffer.

Box 3.13: Illustrative quotes for recommendations to motivate CVs

R2: "The changes we want is to increase or empower us by providing mobility and where necessary allowance. This would shut the mouth of our detractors who will always accuse and make jest of us of involving in a worthless venture. This will add some integrity and respect to our work. " FGD17 (Male Community volunteers)

R1: "You see we don't have any other 'job doing' aside this one, so provision of meals especially lunch could really help improve on our working conditions." FGD17 (Male Community volunteers)

R1: "What we are asking for, education is something that everyone wants……… Nobody rejects education, no matter how old you are you can educate some and you will also be educated. So whenever it comes we will be educated so even if I get stuck I will be educated." FGD11 (Female Community volunteers)

R3: "We want the government to provide with all the equipment we need to carry out this work so that we can be motivated to give our very best." FGD18 (Male Community volunteers)

R3: "Honestly, there is advice, just like my colleague said, distance is a major issue. If the program provides motor cycles for us we would be able to cover 5, 6, 7 to 10km journeys. This is a major issue, and as such any help that would come should relate to mobility for volunteers, for example with a motorcycle we would be able to go round the city of Bamaina. All the programs could be doing is to fuel these motorcycles at intervals and you will see that there will be no work that we would not be able to do as we will be motivated." FGD17 (Female Community volunteers)

R2: "They should also take attendance of those of us who come to work and separate us from those who don't. When it is time for payment of allowance during the seminars, they should make us feel the impact of their supervision." FGD19 (Female Community volunteers)

3.8.3 Other Recommendations

Other recommendations were made to strengthen the sustainability and success of the CMAM programme. Fathers of beneficiaries were concerned that bribery would come into the system and recommended introducing mechanisms that would prevent it. They had heard rumours that RUTF

was being sold by recipients instead of it being given to children; and two of the mothers of CMAM beneficiaries reported RUTF could be purchased in the community although they had not purchased it themselves. The risk, for programme sustainability, created by irregular or inadequate supplies of RUTF was also reflected in a recommendation made by government officials to begin producing RUTF locally.

Box 3.14: Illustrative quotes for other recommendations

R: "It is all the same; those health workers too, there is something that can be done for them too so that they are not discouraged, you know, if someone is doing something, the devil can come in, it is work that gives you reward and you know that when you do it, you will be rewarded, but the devil can come into your heart and tell you that since you don't get anything, why don't you collect a little bribe and you see you can be discouraged even if the government is paying you on that job, but when you go back and they (the organizers) are taking care of you and giving you a little something, you see God can protect you from the work of the devil and you will move to another work, you know that there is something little you are getting on top of your salary. So you see even the staffs will take care and hold to the work to continue." (IDI3_Father of non-defaulter Zamfara)

R: "Yes, some sell it for a hundred naira, they are the ones who say it, and the hospital workers are aware they say it, when I heard it, I gathered them and warned anyone of them who does it, I would report her and then I investigated and confirmed it wasn't true, and so permitted them to come. " (IDI4_Father of non-defaulter Jigawa)

R3: "No way, I heard that each pack goes for N500." FGD7 (Mothers defaulted)

R: "Okay, my advice is, since this is something that will end, my advice is to seek ways to make this sustainable for us as you have seen before now it was not here and someday It must come to an end. My advice is to train mothers in ways to best raise their children in relation to this issue. Let us prepare our own formula, let us do it ourselves and it will be more useful to us than what is being brought to us now." IDI3 (Government officials)

4 Discussion

In this study we collected, collated and synthesised the perceptions and experiences of providers, parents of recipients and related individuals on CMAM. We focussed in particular on a number of priority areas of investigation as captured in the objectives of the study. The results presented are based upon the perceptions and experiences as reported by those interviewed and the interpretation of these by the research team, who coded, analysed and interpreted the data. When interpreting the data emphasis was given to particular interview strata for certain themes based on experiential versus theoretical reporting. For example, a stronger focus was given to government officials when analysing perceptions of ways in which to sustain funding for CMAM and on women who had defaulted when assessing reasons for defaulting from CMAM.

4.1 Opinions and benefits of the programme

The study findings suggest that the CMAM programme is highly acceptable to all stakeholders interviewed and would be expected to be viewed in the same light in other LGAs and other States. The major reason, for this acceptability, is the visibility of the impact of RUTF in particular, on malnourished children. Its visible and rapid impact on health is seen in not just a few individuals but in large numbers of children when they are treated. Such visibility of an intervention's impact has been acknowledged as a factor which encourages the adoption of new innovations since the development of the diffusion of innovations framework in 1962 [21]. This visibility has helped leverage a state level commitment to financially support the CMAM programme, in Zamfara State, and should be repeated in other States including Jigawa.

4.2 Barriers to attendance and causes of defaulting

The barriers to attendance at CMAM clinics, as identified in the study, can all, with the exception of stock-outs, be attributed to the current design of the programme where there are just a total of 78 OTP centres and 21 ITP centres across the 5 states making an average of around 15 OTP and 4 ITP per State. This programme needs to provide services to a population of 3.4 million in Jigawa and 3.3 million in Zamfara (2006 census) where the prevalence of SAM are estimated at 3.6% and 1.2% in Jigawa and Zamfara, respectively [22]. It is not surprising therefore that on the one day per week when the CMAM clinic runs in these facilities the workload for the staff and therefore the capacity to deal with all children in a timely manner is severely stretched. Importantly the ethos of the community based decentralised approach to the treatment of acute malnutrition is being compromised by the strain on adequate geographical access to remote communities by the programme being centralised in just a few clinics. This centralisation results in constraints related to transport availability and financing issues for women when trying to bring their children for treatment. Achieving a wider spread of health facilities offering the CMAM programme would not only increase geographical access, but it would also reduce the financial pressure on households in accessing the care needed for their children. The prevalence of acute malnutrition is highest in resource-poor environments [23] and poorer communities are generally furthest from health facilities. It is likely therefore that the CMAM programme whilst reaching large numbers of children, is either not reaching its primary target population or it is reaching them and in the process of doing so, putting further economic burden on these financially vulnerable households.

Whilst increasing the geographic spread of CMAM in terms of health facilities and CVs would be the ideal, this is likely to be a longer term strategy because the programme is constrained by available resources for RUTF purchase. In the interim, the feasibility of different mechanisms for providing transport costs for mother enrolled in the CMAM programme to bring their children back until treatment is complete should be investigated. Such studies have been suggested in the field

of maternal health and could be expanded to the CMAM programme [24]. Possible approaches are: 1) direct financial reward to cover the cost of transport to and from the facility; 2) transport vouchers to cover return costs; or 3) coverage of costs through health insurance or a community-based emergency fund. Potential strategies could be tested in Zamfara and Jigawa through the development of an operational research study. This would involve assessing the feasibility, relative costs, outcomes and perceptions of stakeholders on the sustainability of the approaches.

The visibility of impact of CMAM on children whilst mostly positive may also be detrimental when mothers perceive that their child has recovered because they look healthy and they then default from the programme. This reason for defaulting has well recognised parallels with for example not completing a full course of antibiotics when the patient perceives that they are better. The major reasons for defaulting from the programme were similar to those reported for not accessing CMAM in the first place but at some point a decision is made between the perceived value of returning to the programme for more RUTF/drugs versus the challenges of doing so and the relative health of the child. Intensive education of mothers on the need to complete the full RUTF treatment regime and the dangers for their children of not completing the full treatment course should be more strongly emphasised during CMAM visits. The message that only the sick child should be given RUTF was well understood and reported to be practiced by both the mothers and husbands participating in this study. Similar education efforts could be made regarding the importance of completing the treatment.

The experience within the CMAM clinic is also a factor that was reported as influencing the decision to return with the child for further treatment or not. Experiencing stock-outs of RUTF and treatment drugs were disincentives to return together with long waiting times and the lack of protection from the elements. WINNN should now consider working with the States and LGAs to develop and implement plans for capacity and systems strengthening to ensure a constant supply of RUTF and essential drugs through effective forecasting, timely delivery of sufficient supplies and safe storage. Interestingly, respondents did not cite health worker attitude as a disincentive to bringing their child for treatment. Poor health worker attitude has been cited in numerous studies as a reason for not returning to health facilities, particularly for pregnant women [25].

4.3 Implementation challenges

4.3.1 Community Volunteers

Early case finding and hence the role of community volunteers is a vital component of CMAM and one that has been shown through experience to successfully deal with cases of acute malnutrition and avert the need for more intensive and costly inpatient care [26]. The lack of, or low financial reward given to the CMAM community volunteers was perceived as a disincentive to their putting effort into their role and to be a significant demotivating factor. This is not a situation that is specific to CMAM and in fact incentives for volunteer health workers in low income settings has been a controversial topic for many years [27, 28]. There is a body of literature from a range of public health programmes from several countries of sub-Saharan Africa which shows differences in stated motivating factors for CVs. These include financial or other material incentives and non-material incentives [29]. In the context of this CMAM study however, the overwhelming response of the CVs on motivation is the desire for financial incentives at least to cover any lost opportunity costs during their CMAM work. Such incentives could be provided, for example, as a transport allowance to avoid the well-known complications of a salary for CVs [30]. There was also a clear wish for some form of performance based reward.

Where non-financial incentives have been suggested, as motivating factors, these have commonly been about education, recognition and identification. WINNN should consider the feasibility of supporting the States and LGAs to provide a financial incentive to the CVs, potentially performance based, as well as providing non-material incentives through education or public advocacy on promoting the role of the CVs. Other potential motivating factors could be the formation, for example, of 'communities of practice' where the CVs have the opportunity to provide support to each other in a structured approach. Effective programmes, which maintain CV motivation over time, use multiple incentives that include both material and non-material incentives[30]. Operational research studies could be used to determine the best approach to improving CV motivation, together with the feasibility, cost and sustainability.

4.3.2 Health Workers

Insufficient numbers of trained health workers in CMAM facilities was one of the main implementation challenges identified in our study. Options to ensure the availability of sufficient trained health workers would be 1) to increase the frequency of trainings for those in CMAM health facilities; and 2) to integrate CMAM training into other health worker trainings so that the majority of health workers are trained, not just those within facilities that are currently running the CMAM programme. At the moment the focus of training is only on health workers in health facilities currently delivering CMAM services. As the proportion of health facilities delivering CMAM services is low, then it follows that the proportion of health workers that are trained in delivering CMAM services is also low. Given the mobility of health workers between facilities, this strategy will continue to present problems in the availability of trained health workers in CMAM health facilities. There are a range of strategies through which each of the above two options may be delivered.

Potential strategies for increasing the frequency of trainings for those in CMAM health facilities range from the traditional training of trainers and cascade training approaches for which there is surprisingly little evidence of success, to those which are based on on-the-job training and supportive supervision. These approaches are more likely to make a difference overall where a greater proportion of health facilities are involved in the CMAM programme or at least in being trained for the reasons discussed above. In order to provide some understanding of CMAM to as wide a number of health workers as possible, CMAM should be incorporated into standard education of nurses and other health worker cadres. There is potential for the exploration of the effectiveness and cost-effectiveness of these different potential strategies for training of health workers in CMAM in WINNN-supported states in Northern Nigeria.

4.4 Sustainability and integration

Other interventions are delivered on CMAM days and therefore the majority of those interviewed and questioned on integration perceived CMAM to be well integrated. There were no examples of CMAM being delivered through other programmes such as polio vaccinations. However, there is a potential for increasing the geographic access to CMAM through such programmes, especially those that have relatively high coverage in more remote communities than are currently reached by CMAM. This could involve referral to a health facility for further assessment and treatment, where necessary, based on mid-arm circumference measurements.

Several of the government officials were worried about the need to import RUTF, they felt that this was not fully within their control and would prefer to be able to produce RUTF locally. RUTF can be made using basic technology [31] from crops that are available in Nigeria. Locally produced RUTF in Senegal and Malawi was found to result in comparable weight gain with imported RUTF [32]. However, the cost of growing these crops, ensuring low aflatoxin levels were maintained in the products produced and producing RUTF compared to the cost of importing RUTF would need to be

determined, together with the feasibility that the demand would be sufficient to cover the costs required in establishing and maintaining such a system.

4.5 Recommendations

Short to medium term

1. Explore options for improving CMAM programme access, for example by:
    a. programme financing and/or providing transportation to mothers on CMAM days,
    b. WINNN encouraging communities to identify ways of providing transport for children identified as needing CMAM treatment, or
    c. increasing coverage of the CVs in rural areas
2. Develop and implement plans for capacity and systems strengthening, especially at the LGA level, to ensure a constant supply of RUTF and essential drugs through effective forecasting, timely delivery of sufficient supplies and safe storage
3. Design and test strategies of material and non-material incentives for CVs including providing means of transportation for them to reach remote areas.
4. Review strategies for health worker training. Explore the feasibility and cost of more frequent trainings in CMAM health facilities versus integrating CMAM training into a standard health worker training syllabus and/or other trainings.
5. Consider the feasibility of providing advocacy and support for the establishment of mechanisms and resources for financial sustainability of CMAM in Jigawa and other WINNN States perhaps based on the model developed in Zamfara State

Long term

- Increase the number of health facilities providing CMAM services

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Annex A List of FGDs and IDIs

Location	Characteristic	Type of interview	Respondents	Gender	No participants
Jigawa Bamaina	Urban low defaulter	FGD	Mothers of never defaulted	Females	13
Jigawa Gwiwa	Urban high defaulter	FGD	Mothers of never defaulted	Females	6
Jigawa Yola	Rural low defaulter	FGD	Mothers of never defaulted	Females	10
Zamfara Bakura	Urban high defaulter	FGD	Mothers of never defaulted	Females	5
Zamfara Shanawa	Urban low defaulter	FGD	Mothers of never defaulted	Females	10
Jigawa Wurno	Rural high defaulter	FGD	Mother defaulter	Females	5
Zamfara Galadi	Rural low defaulter	FGD	Mother defaulter	Females	6
Zamfara Yarkofoji	Rural low defaulter	FGD	Mother defaulter	Females	8
Jigawa Bamaina	Urban low defaulter	FGD	Female CVs	Females	6
Jigawa Wurno	Rural high defaulter	FGD	Female CVs	Females	12
Jigawa Gwiwa	Urban high defaulter	FGD	Female CVs	Females	6
Jigawa Yola	Rural low defaulter	FGD	Female CVs	Females	8
Zamfara Shanawa	Urban low defaulter	FGD	Female CVs	Females	6
Zamfara Galadi	Rural low defaulter	FGD	Female CVs	Females	8
Zamfara Bakura	Urban high defaulter	FGD	Female CVs	Females	7
Zamfara Yarkofoji	Rural low defaulter	FGD	Female CVs	Females	11
Jigawa Bamaina	Urban low defaulter	FGD	Male CVs	Males	6
Jigawa Wurno	Rural high defaulter	FGD	Male CVs	Males	11
Jigawa Gwiwa	Urban high defaulter	FGD	Male CVs	Males	7
Jigawa Yola2	Rural low defaulter	FGD	Male CVs	Males	7
Zamfara Shanawa	Urban low defaulter	FGD	Male CVs	Males	6
Zamfara Galadi	Rural low defaulter	FGD	Male CVs	Males	6
Zamfara Bakura	Urban high defaulter	FGD	Male CVs	Males	6
Jigawa Yola	Rural low defaulter	FGD	Male CVs	Males	7
Jigawa	State	IDI	Director PHC	Male	1
Zamfara	State	IDI	Director PHC	Male	1
Bakura	LGA	IDI	Director PHC	Male	1
Jigawa	State	IDI	State Nutrition Officer	Male	1
Zamfara	State	IDI	State Nutrition Officer	Male	1
Jigawa Birnin Kudu	LGA	IDI	LGA Nutrition Officer	Male	1
Jigawa Gwiwa	LGA	IDI	LGA Nutrition Officer	Male	1
Zamfara Bakura	LGA	IDI	LGA Nutrition Officer	Male	1

Zamfara Shinkafi	LGA	IDI	LGA Nutrition Officer	Male	1
Jigawa Bamaina	Urban low defaulter	IDI	Health Manager	Male	1
Jigawa Wurno	Rural high defaulter	IDI	Health Manager	Male	1
Jigawa Gwiwa	Urban high defaulter	IDI	Health Manager	Male	1
Jigawa Yola	Rural low defaulter	IDI	Health Manager	Male	1
Zamfara Shanawa	Urban low defaulter	IDI	Health Manager	Male	1
Zamfara Galadi	Rural low defaulter	IDI	Health Manager	Male	1
Zamfara Bakura	Urban high defaulter	IDI	Health Manager	Male	1
Zamfara Yarkofoji	Rural low defaulter	IDI	Health Manager	Male	1
Jigawa Bamaina	Urban low defaulter	IDI	Frontline health worker	Male	1
Jigawa Wurno	Rural high defaulter	IDI	Frontline health worker	Male	1
Jigawa Gwiwa	Urban high defaulter	IDI	Frontline health worker	Male	1
Jigawa Yola	Rural low defaulter	IDI	Frontline health worker	Male	1
Zamfara Shanawa	Urban low defaulter	IDI	Frontline health worker	Male	1
Zamfara Galadi	Rural low defaulter	IDI	Frontline health worker	Male	1
Zamfara Bakura	Urban high defaulter	IDI	Frontline health worker	Male	1
Zamfara Yarkofoji	Rural low defaulter	IDI	Frontline health worker	Male	1
Jigawa Wurno	Rural high defaulter	IDI	Father of defaulter	Male	1
Jigawa Gwiwa	Urban high defaulter	IDI	Father of defaulter	Male	1
JigawaYola	Rural low defaulter	IDI	Father of defaulter	Male	1
Zamfara Shanawa	Urban low defaulter	IDI	Father of defaulter	Male	1
Zamfara Galadi	Rural low defaulter	IDI	Father of defaulter	Male	1
Zamfara Bakura	Urban high defaulter	IDI	Father of defaulter	Male	1
Zamfara Yarkofoji	Rural low defaulter	IDI	Father of defaulter	Male	1
Jigawa Bamaina	Urban low defaulter	IDI	Father of never defaulted	Male	1
Jigawa Wurno	Rural high defaulter	IDI	Father of never defaulted	Male	1
Jigawa Wurno 2	Rural high defaulter	IDI	Father of never defaulted	Male	1
-Jigawa Gwiwa	Urban high defaulter	IDI	Father of never defaulted	Male	1
Jigawa Yola	Rural low defaulter	IDI	Father of never defaulted	Male	1
Zamfara Shanawa	Urban low defaulter	IDI	Father of never defaulted	Male	1
Zamfara Galadi	Rural low defaulter	IDI	Father of never defaulted	Male	1
Zamfara Bakura	Urban high defaulter	IDI	Father of never defaulted	Male	1
Zamfara Yarkofoji	Rural low defaulter	IDI	Father of never defaulted	Male	1
ZamfaraYarkofoji	Rural low defaulter	IDI	**Male CV**	Male	1

JigawaBamaina	Urban low defaulter	IDI	Mother of defaulter	Female	1
JigawaYola	Rural low defaulter	IDI	Mother of defaulter	Female	1
TOTAL					**228**

Annex B Theme Guides

In this annex, the theme guides for the focus groups (women and CVs) and in-depth interviews (state and LGA level DPHC, nutrition officers, health managers and frontline health workers) are presented below.

B.1 Focus Group Discussion themes/questions for women who had never defaulted/ defaulted from the CMAM programme

1. To determine women's opinions and perceptions about the CMAM programme and its benefits
2. To determine why women bring their young children to CMAM and gain insights inot their experience with the CMAM programme at all levels
3. To identify the common reasons for not presenting to CMAM or defaulting from the CMAM programme and the challenges faced in accessing CMAM services
4. To identify ways in which to motivate or support women to patronize CMAM centres
5. To identify ways to strengthen the CMAM programme to better meet women's needs

No.	Themes/Questions	Probes
Q_1	What was the reason you brought your child to CMAM?	• Do mothers sometimes bring some but not all eligible children? If so, what motivates their decision? • What good or bad impacts does the CMAM programme have on the beneficiaries and the communities?
Q_2	Can you describe to me how the CMAM programme works in your community and about your experiences in the programme	• How did you hear of the program? • How are children selected into the CMAM programme? • What happens when a child enters the programme? Are you required to pay for anything you receive in the CMAM programme? If yes, what do you have to pay for (i.e., services, drugs)? • What support is required from the fathers, husbands and men in the households? • Where do you obtain RUFT and how accessible is it? • Once a child of yours is given RUTF which other family members at home share this RUTF with the child? • What do you think of community volunteers? • What do you perceive the roles of CVs and HW to be? • What were your difficult experiences in the CMAM programme? • What would you recommend should be changed to improve your experience when participating in the CMAM programme? Interactions with the CV and HW in the community? In the clinic experience? In receiving RUTF and drugs?

Q_3	Have you given any nutrition education?	• During CMAM? Was during every visit? What where you told? • During ANC? What where you told? • Child welfare clinics or immunization clinks (days). What where you told?
Q_4	`Some children are referred to CMAM but their mother does not take them. In your opinion, why do some women from your [*town /village*] not bring their young children to CMAM centres? *(Barriers)*	• Probe about awareness and beliefs about CMAM • Probe about influential people - is it about who decides whether you attend or not and why? • Is it about past experiences and why? • What could be done to motivate and support these women to bring their child to CMAM?
Q_4	In your opinion what are the common causes of defaulting from the CMAM OTP programme after a child has started treatment?	• What makes some mothers attend CMAM clinic every week? • In your opinion why do some women not come for the scheduled weekly CMAM clinic? • Probe for common causes for defaulting not mentioned before: How important are stock outs of drugs or RUTF, distance, lack of permission from husbands or other individuals, other commitments e.g.: attending ceremonies, harvesting, lack of money, long wait periods at the clinics, user fees non-recovery of the child other causes, etc. • What could be done to motivate women to continue bringing their child for treatment? • What changes are needed to the programme or its staff to support women to continue bringing their child for CMAM treatment? • In what ways could husbands/fathers provide support to help reduce defaulting / absenteeism?

B.2 Focus Group Discussion themes/questions for male and female CVs involved with CMAM programme.

Objectives

1. To understand the roles of the CVs in the CMAM programme and how to ensure their work is manageable
2. To determine what motivates the CVs and how to strengthen their motivation
3. To identify the types of support and guidance that are given to CVs in the CMAM programme and how this could be strengthened
4. To understand the long term commitment of CVs to the CMAM programme and how to strengthen it
5. To determine how much interest there is in the community for acting as a CV, and how to maintain such interest

	Questions	Probes
1.	Could you tell us about the work you do in a typical non-clinic and clinic day for the CMAM programme	• Of these roles - what do you find interesting? • Of these roles - what do you find challenging? • What support do you receive in performing your roles? • As a CV, do you work with both mothers and fathers in the community? • What is the role of fathers, husbands and men in the community in supporting CMAM services?
2.	How are you being trained?	• When last were you trained? • What training are you given? • How often do you get trained? • Is there anything you were trained to do that is impractical and why? What things does the CV position require you to do that you were not trained for? • What changes would strengthen the training?
3.	How are you being supervised?	• Who supervises you? • How does it work? • When were you last supervised? • Who supervises your work, for CMAM, and what is your opinion about the supervision? • What things does the CV position require you to do that you do not have sufficient guidance, supervision and support to do well? • What changes would you recommend to improve support, and meet your supervision and guidance needs?
4.	What encourages you to remain in the CV role?	• What perceived benefits do you receive from your position as a CV? • What impact do you think your work has, and why? • What aspects of your life enable you to perform well as a CV?
5.	What do you find challenging in the roles?	• What do you see as its challenges? • What are the things you do not find the time to do as a CV?

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		• How manageable is your workload as a CV? • What aspects of your life disrupt your activities as a CV?
6.	What changes would make the work of a community volunteer easier to do	• What changes would make the process simpler? • What can be done to ensure that your CV role fits in seamlessly, and even enhances your regular life and activities?
7.	How much interest amongst other community members is there for acting as a CV and why would they be interested?	• How do other community members perceive the position of a CV? • How many people are you aware of that would like to become CVs? • Why does a CV stop being a volunteer?

B.3 In-Depth Interview themes/questions for frontline health workers.

Objectives

1. To understand how the CMAM programme is implemented and how to it is manageable and well integrated into the routine health services
2. To understand the opinions of HWs about the CMAM programme and its benefits
3. To identify the types of support and guidance that are given to HWs in the CMAM programme and how this could be strengthened
4. To understand the long term commitment of HWs to the CMAM programme and how to strengthen it

	Questions	Probes
1.	What is your opinion about the benefits of the CMAM programme?	• What aspects of CMAM do you think are most beneficial? • What impact does the CMAM programme have? • What factors determine whether the programme has an impact or not? • What support does the community provide for the CMAM programme?
2.	Can you describe to me how the CMAM programme works in your health facility?	• How are clients selected to come to the CMAM programme? • What happens when they enter the programme? • How many health workers provide the CMAM services and why those workers? • On CMAM clinic days what happens to other sick people? (If these patents are referred, where are they being referred to?) • Who is RUFT given to? • Which children in the programme are being given drugs? • Which drugs are being given? • Who is responsible for supervising the work you do on CMAM? How does the supervision work? What do you feel about the supervision? • What factors influence how you implement CMAM in your facility? • How well do you think the programme is working?
3.	What challenges do you face when implementing the CMAM programme in your health facility?	• What are the challenges to the CMAM programme? • Training challenges: When last were you trained? • How many times were you trained? • How often do you get trained? • What you were trained to do that is impractical and why? • Or what were you not trained to do that is required in implementing CMAM? • Process challenges: What aspects of CMAM implementation are difficult to adequately carry out?

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		• Time challenges: What CMAM duties take up the most time? What CMAM duties do you not find time to do? • Support challenges: Which aspects of CMAM implementation have insufficient support and guidance?
4.	How do your CMAM responsibilities affect your other roles and responsibilities in the health facility, or as a health worker?	• What positive benefits do you think the CMAM programme has for your work? • What disruptions does the CMAM programme present to your work?
5.	How do you think implementation of the CMAM programme can be improved in your health facility?	• In what ways can the disruptions of CMAM to your other duties be addressed? • In what ways can the challenges of the CMAM programme be addressed? • Training, process, time, and support challenges
6.	If you consider the CMAM programme in your community as a whole, what are the challenges with the programme at the community level?	• What are the problems with the implementation of the CMAM programme at the community level? • Training, process, time, and support challenges • What are the main barriers to the success of the CMAM programme at the community level? • Are the barriers to success on the part of the service providers, the clients, or both? In what ways? • Support and permission of both fathers and husbands? • How do you perceive the roles of the community volunteers? • In what ways are they necessary? • In what ways do you think they should not be involved? • What are challenges in working with the community volunteers?
7.	How can the implementation of the CMAM programme be improved at the community level?	• How can the implementation problems (training, process, time, and support) be addressed? • How can service providers' barriers to the CMAM programme's success be addressed? • How can client level barriers to CMAM success be addressed? • How can the performance of community volunteers be improved?
8.	How can the CMAM programme be better integrated into the health system?	• What are the services that are provided in your health facility every day of the week? • What is needed to make CMAM fit better with your other duties? • Do you consider the CMAM programme as one of your primary responsibilities, like other services you provide? Why or why not? • What would need to be done for you to feel that CMAM is one of your core responsibilities? • What would need to be done to enable you provide CMAM services every day of the week? • What suggestions would you give to improve the supervision of CMAM activities?

B.4 In-depth Interview Guide for the Director of PHC AND State Nutrition officer at State level

Objectives

1. To determine what support the state currently provides for CMAM
2. To identify the challenges the state has in supporting CMAM
3. To determine the kinds of incentives that would encourage the state to provide greater support
4. To determine how to strengthen CMAM, including plans for continuity, sustainability and integration into the primary health care system

	Questions	Probes
1.	What is your opinion about the CMAM programme?	• How well do you think the programme is working? • What is working particularly well? • How do you think it has benefited the health system? • What are the benefits for the communities and clients? • What is the State's opinion about the CMAM programme?
2.	What are the challenges with the CMAM programme and what steps could be taken to address these challenges?	• Human resource challenges? • Training challenges? • Funding challenges? • Logistics challenges, such as for transporting materials, reaching hard-to-reach areas? • Challenges with procuring materials for the programme? • Social mobilisation challenges?
3.	How is CMAM (supportive) supervision being carried out?	• What is your role in the supervision of CMAM activities in the State? • How often do you carry out this role? • Who are the individuals involved in the supervision of CMAM activities at the State level? • What support is being provided for the supervision of CMAM activities? • What are the challenges faced in the supervision of CMAM activities?
4.	What kinds of support does the state provide for the CMAM programme?	• Human resource support? • Training support? • Funding support? • Logistics and transportation support (especially for RUTF)? • Procurement support (essential drugs)?

		• Social mobilisation support? • Other support provided by individuals in the State?
5.	What would encourage the state to provide more support for CMAM?	• What kinds of information about the programme would encourage you to source for more support for CMAM? • What kind of results from the programme would encourage the state to provide more support?
6.	What is your opinion about the future of CMAM in your state?	• How can CMAM be better integrated into the state health system? • What needs to be done so that the CMAM programme continues even if donors stopped providing funding support? • What needs to be done so that the CMAM programme continues even if the state administration changes? • What are the State's plans for the procurement of drugs and RUTF for the CMAM programmed in the future?

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Annex C Matrix summarising the sub-themes under each theme

Colour code:

Both States: Green

Jigawa: Blue

Zamfara: Red

	Women who never defaulted -Both States -Jigawa -Zamfara	Women who defaulted -Both States -Jigawa -Zamfara	Female CVs -Both States -Jigawa -Zamfara -	Male CVs -Both States -Jigawa -Zamfara	Frontline HWs -Both States -Jigawa -Zamfara	Health managers -Both States -Jigawa -Zamfara	Men-defaulter (No difference between the 2 states).	Men Non-defaulter (No difference between the 2 states).	Govt officials -Both States -Jigawa -Zamfara
BENEFITS OF PROGRAMME	-Children get healthier/Health benefits/ show improvement -Programme enlightens -Health education on other health issues and personal hygiene. -Instant solution to rashes, diarrhoea and other symptoms that have been disturbing child -Solution to malnutrition -All children enrolled in the	Children get healthier/Health benefits/ show improvement -Encourages people coming from afar to bring their children for treatment. -Benefits seen by people who do not attend. -Women see the benefits and encourage other women to bring their children. -Benefits more than challenges -Relief for mother	-Apparent decline in SAM -Increased knowledge about health/ healthcare	-Treats malnutrition and restores health -Saves lives and reduces infant and child mortality -Increases acceptance and use of other health services -Helps community, especially the poor -Cures malnutrition -Advances and helps community -Brings health	-Has health benefits Improves wellbeing of children -Reduces number of cases of children that are malnourished. -CMAM progresses hospital work -Encourages high hospital attendance -Safeguards	-Fosters good understanding between service providers - Has brought progress the community -Addresses malnutrition and its causes -Rescues children -Permanent cure to malnutrition -Free CMAM services saves health cost for families	-Health benefits -Effective treatment -Free treatment	-Health benefits -Effective treatment -High quality food given -Health Information	- See weight gain -Preventing child deaths -Awareness creation on exclusive breast feeding - Educating parents - Detecting other health problems

	programme have recovered. -Life changing programme in the community. -Child eats well because of RUTF. - -Gives freedom from malnutrition -Eradicating malnutrition from the community -Makes HWs accept you with open hands (arms) - The community has made progress -Makes parents happy -Improvement in child's condition once he starts taking the milk is almost instant.	- Programme enlightens - Saves health cost -Visible difference seen in child -Many people have seen the benefits. -Good turnout at programme.		-Makes RUTFs available and accessible -Has brought education and enlightenment about causes of malnutrition	Health of children. -Bringing malnutrition into the limelight -Gives healing from malnutrition -Health education on other health issues	-Relief from patronizing herbalists and traditional health practitioners. -Reduction in sicknesses -HWs are viewed with dignity because of the programme -Communities accepting malnutrition -High hospital turnout and use of other hospital services. -Strengthened relationship of the community -Has led to better understanding of malnutrition. -Has brought dignity			
OPINIONS – HW	-HWs do not humiliate-accept with open hands -Hard working and committed.	-HWs useful -HWs friendly -HWs d not maltreat or envy					-Help people -Hard working – Committed -Honourable	-Cooperative /collaborative -Hard working, -Committed, -Honourable	

	- HWs useful						-Respect beneficiaries	-Lack continuity	
OPINIONS-CV	-CVs useful -Hard working and committed.	-CVs useful -Helping out on clinic days -Involved in mobilization and raising awareness on the programme. -Work with HWs - They do not segregate			-CVs play a very important and supportive role.	-CVs play a very important and supportive role.	Help people/ community Hard working, Committed & Honest Good/pleased Distrust (n=1)	Help people/ community Hard working, Competent, Committed & Honest Need both men & women	
OPINIONS PROGRAMME	-Benefits seen -For the poor -some call it hunger sickness - People happy about programme	-Generally accepted -Nothing bad about the programme -Benefits seen by those who bring their children and those who do not. - People happy about programmed -Good and helpful programme -Trusted -	-Brings happiness -Gladdening, encouraging, and motivating -Transforms both mother and child - Saves children from undernutrition -Is of benefit to the community -Adds value -Well received	-Fascinating -Liked -Accepted -Gladdening -Brings great improvement -Welcomed	- Beneficial (most beneficial health programme seen) -Widely accepted/ Generally accepted and enjoyed by people --Welcome development. -Great impact - Visibly different from other programmes -RUTF given free	-Generally accepted -Beneficial -Well Structured -Very effective -Visibly different from other programmed -Great impact -Seen as progress to the community - No stigmatization associated with the programme	-Helps - health -Runs well -Government helps people -Dislike - invasive (n=1)	-Helps - health -Runs well -Government helps people -Progress in society	-Prefer teaching on how to prepare RUTF themselves

EXPERIENCES	-Child examined and then given medication and nutrition packs. -Admission into the programme requires that the child must meet certain criteria. -Free services provide -RUTF gotten only from malnutrition workers (HWs)/hospital - RUTF only taken by malnourished child (not shared). -RUTF taken by malnourished child but sometimes shared with other children - No negative experience	-Child examined and then given medication and nutrition packs. -Admission into the programme requires that the child must meet certain criteria. -Free services provided. - RUTF gotten from malnutrition workers (HWs)/hospital -RUTF only taken by malnourished child (not shared). -?? Paying to get RUTF No negative experience					-Given free milk -Squeeze into mouth -Only child receives milk -Children weighed -Treated if necessary -Wash hands and burn refuse	-Given free milk -Given drugs, vaccinations -Milk seen as medicine -Only child receives milk -Registered -Weighed -Education & sensitisation -Strong follow-up -Selling milk received	
REASONS FOR ACCESS	-Benefits seen -Husbands support/ permission **<u>Children brought into the malnutrition program because:</u>**	-Benefits seen -Close proximity of CMAM centres - Husbands support/ permission- -Availability of transportation				-Free treatment	-Health benefits -Free -Enjoy it	-Health benefits -Husband encouragem ent -Health education	- Supply of drugs from partners -Supply of RUTF - monthly meetings with health workers and CVs - mothers see child

	-Breast milk was not good -Child sick	**Children brought into the malnutrition program because:** -Breast milk not enough and not good -Child sick (e.g. diarrhoea, vomiting, chicken pox, measles) -Child repeatedly sick							recover quickly
REASONS FOR NON-ATTENDING	-Carelessness of parents -Husbands discouraging their wives. -Not wanting to come. -Ignorance -Beliefs -Some mothers are ashamed that their children are malnourished. -Pride (for the poor) -Harmful -Not knowing the benefits of the programme - Not trusting the programme - Pride of the parents	--Distance/ Lack of funds for transport - Not trusting the programme -Some mothers are ashamed that their children are malnourished. - Not wanting to come. -Attributing malnutrition to being “dirty and possessed” and so child is given traditional medicine instead. -Not knowing the benefits of the programme **Reasons why mothers do not bring all**			-Distance -Lack of support from husbands -Perceive malnutrition as caused by hunger - Cost of transportation -Initial scepticism of the programme	Distance -Shortage of commodities -Cost of transportation	-Benefits not known -Husbands permission -Transport- lack funds -Distrust -Does not care -Other commitments -Woman’s attitude -Stock outs -Infrastructure -transport	-Benefits not known -Husbands permission -Transport- lack funds -Distrust -Does not care -Woman’s attitude /depressed -Stock outs -Misunderstand -illness -Resent- rumours	- Remote areas no CVs - No money to pay CVs transport

	- Feel that it is a waste of their time -Lack of transportation **Reasons why mothers do not bring all their children qualified for the CMAM programme into the programme.** -Mother cannot carry all malnourished children at once -Mother cannot control the movement of all her children.	**their children qualified for the CMAM programme into the programme.** -Mother cannot carry all malnourished children at once -Distance -Ignorance							

	-Ignorance								
REASONS FOR DEFAULTING	-Child gets relief (health much better) -Perceived side effects of RUTF (diarrhoea and vomiting) - -Lack of transportation -Distance -Laziness - Husband not permitting wives to go -Mother's ill health or death -No reason - Some women get tired of bring their children week after week.	- Mother travelled out of town -No chance to attend (busy). -Death of the child -Mother's ill health - Child gets relief (health much better) -Some women get tired of bring their children week after week. -No relief in child's symptoms -Stock outs -Being told by community members that RUTF will not be given to them by the programme once they had defaulted. -No shelter/shade in the CMAM centre		-Distance from the health facility coupled with inadequate transportation	- Husbands stopping their wives from attending - Misconception about the cause of malnutrition -Shortage of commodities and HWs -Distance -Mothers just stopping on their own/ not following instructions	-Distance -Cost of accessing the facilities weekly/ Lack of funds for transport -Enormous workload for HWs -Long wait periods for mothers on clinic days -Mothers travelling and not informing HWs -Death - Transfer to other CMAM OTP sites -Seasons (defaulting more during the rainy season)	-Child recovered -No health benefits -Child won't eat -Husbands permission -Money -Distrust -Women – sick, -competing obligations -time, - disorganised , -lazy -no understanding -Stock outs -Strikes & hours of distribution -Transport – costs & -availability -time -security - Infrastructure – roads -floods	C-child recovered -Child won't eat -Husbands permission -Money -Stock outs -Strikes & hours of distribution -Transport – costs & availability	- Incorrect denominator due to non-reported deaths - from other catchment areas, distance - lack of understanding of need to complete - divorce so move away

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		-Admission card lost by workers -No help for mother -Ignorance - Husband not permitting wives to go. - Birth of another child -Distance							
SUPPORT & MOTIVATION FOR ATTENDANCE	- Husbands permission -Husbands assistance/support -Continuous supply of commodities	-Husbands assistance/support - Husbands permission - Parents' permission -Child's health			-Support from husbands: permission and transport fare		-Husbands -In-laws -Community leaders -God <u>SOURCES OF INFORMATION</u> -Word of mouth -CV/HW -Community leaders	-Husbands -CV/HW -Community leaders / elders -God <u>SOURCES OF INFORMATION</u> -Word of mouth -CV/HW -Community leaders -Mass Media	
RECOMMENDATIONS	-Continuous supply of commodities -Continuous education to those who do not bring their children. -Continuation of the programme	-- HWs to re-enrol women who default -Reduce wait time -Convincing defaulters to resume attending the programme	-Material incentives including cash, refreshments on clinic days, financial help and occupational help -Transportation -More education -Better supervision and fairer compensation -Better information/communication system	-Occupational assistance -Transportation for CVs -Financial incentives -Prevent stock outs -Better planning and greater efficiency	-Give incentives to CVs - More training required/ Regular training and workshops -Recruit more HWs Give incentives to HWs	-Using the mass media (e.g. radio) to inform people on how the programme works. -Regular supply of commodities (drugs and RUTF)	-Education/ sensitisation -Incentives for women (soap) -Provide transport -Avoid stock outs -Pay/support CVs -Increase HW/staff	-Education/ sensitisation -Increase women's involvement -Incentives for women (soap) -Provide transport -Avoid stock outs -Pay/support CVs	

	-Government to provide more food -Employ more HWs - No need to change anything - Not allowing defaulters back into the programme -Threaten to remove absentees from the program	-Husbands to give permission and support -Giving incentives -Need big hospital. -Continuous supply of commodities - No need to change anything	-Rotation of volunteer duties among CVs -Increase number of CVs -Improve public perception of CVs -Improved facilities for CMAM clinics	-More volunteers -Fairer compensation -Employment for CVs -Routine review of training -Adequate work materials for CVs -Monthly review meetings and reassessments	-Increasing the number of CMAM centres -Increase social mobilization for the programme -Employing more CVs	-Motivation of HWs and volunteers -Regular supervision -Give incentives to CVs -Renovate hospital (make the hospital bigger) to provide this service and storage. -Increase the number of HWs -Increasing the number of CMAM centres	-Tolerance – don't send women away -Improve infrastructure -Extend programme	-Prevent corruption -Improve infrastructure	
CHALLENGES	- Long queues/ Long wait period - Stock outs - Programme officials discharging child even before s/he is due for discharge - Don't face any challenge	-Large crowds -Long wait period -Stock outs -Don't face any challenge	-Lack of material incentives and delays in receiving what little does exist -Ridicule from some community members -Abuse of the programme -Beneficiary disinterest/ disbelief/ reluctance/ noncompliance -Difficulties in carrying out some CMAM activities, particularly weighing children -Concerns about programme sustainability -Poor organization/ inadequate facilities at CMAM clinics	- Situations not covered by training -Stock outs of RUTFs and other materials -Lack of transportation -Lack of material incentives and delays in receiving what little does exist -Some community members are not supportive of CVs -Defaulting participants and	- -Bringing children who do not qualify into the programme -Enormous workload - Long work hours /time consuming work - Shortage of commodities (RUTF and drugs).	- Poor storage facility for RUTF -Lack of qualified and trained HWs/ shortage of staff -Lack of mobile phone coverage affects sending of reports -Shortage of commodities			- Scale up only 3 LGAs per State

			-Illness	challenges with locating them -Beneficiary noncomplianc e -Long wait times for participants during CMAM clinics -Issues with carrying out some of CMAM activities Community misconception s about CV remuneration -Disruption of personal life and regular occupation by CV activities -CV workload -Non-institutionalizat ion of CVs, leading to limited influence within the system -Concerns that CVs are being treated unfairly -Inadequate support -Lingering mistrust of programme -Security concerns -Inadequate facilities	Transfer of trained CMAM staff -Inadequate number of HWs. - Lack of obedience - Incentives not given to CVs/HWs - Mothers coming late on CMAM clinic days -HWs from other facilities leaving their primary posts unmanned on CMAM days. -Mothers not following instructions on how to use the milk.	- Absenteeism of CVs - Lack of inadequate information about the programme -No funds set aside for the programme -Lack of funds for follow up -Incentives not given to CVs/HWs - Distance to health facilities providing CMAM services. - Carelessnes s of mothers and they not adhering to medical advice -low turnout during rainy season			

ROLES-WORK			-Sensitize women about CMAM -Facilitate CMAM clinics and activities -Give health education (both during CMAM clinics, and elsewhere) -Explain proper use of RUTF -Screening/identifying new cases of SAM -Visit defaulters -Sometimes talk to men/fathers -Promote routine health services -Monitor growth of child over the course of treatment	-Facilitate CMAM clinic activities -Visit communities and identify new SAM cases -Follow-up to ensure that beneficiaries adhere to treatment -Social mobilization in complement with female CVs -Provide nutrition education during CMAM clinics and in communities -Contribute to community development in other ways apart from CMAM -Provide all kinds of support to CMAM beneficiaries -Promote word-of-mouth advertisements of CMAM	-Education (health) - Providing services on CMAM clinic days: Weighing children, medical consultation, giving RUTF and drugs. -CVs play a very important and supportive role --Attending to CMAM cases and other cases - Role of CVs and other members of the community: Sensitization and mobilization -CVs follow up -Role of CVs: Active case finding and follow up -Carrying out several duties	- Providing services n CMAM clinic days: Weighing children, medical consultation, giving RUTF and drugs. -Role of CVs: Sensitization and mobilization -Health consultation and appropriate referral. -Complementary roles between HWs and CVs - Spreading news and information about hospital activities -Attending to CMAM cases and other cases - Defaulter tracing -Role of HM: coordination of activities -Education (health)			

						-Carrying out several duties -Role of CVs: Active case finding			
SUPERVISION			-Not regularly done in one LGA in which CVs also seem to resent it		- Recognizing the importance of supervision -Supportive supervision carried out weekly by staff of an organization. - Regular and done by several people -Seems to be working well	-Regular and done by several people. -Supportive supervision carried out regularly. -Done by community mobilisers to ensure that things are going well. - CVs supervised by Health manager. -State government officials carry out supervision. -Supportive supervision brings encourage and builds confidence -HMs carry out supportive supervision -Recognizing the importance			

						of supervision			
INTEGRATION	-Polio officials enlighten community abut programme	--Immunization given on CMAM days			-Well integrated with other health programmes - Does not want integration because of the work load -Good referral system	-With RI and other health programmes -Cannot be well combined			-Given through other programmes: ANC & family planning -Interference with other programmes, on CMAM days deal with emergencies for others -Governance: need guidelines for an integrated package -Shouldn't be an everyday programme
MOTIVATION-WORK			-Religious convictions -Increased knowledge about health/healthcare -Benefits to children and joy of seeing the impact on participating children	-Religious convictions -Desire to do one's part and contribute to community development	-Benefits to the community -Major activity -Patience of the people -Good	-Number of CVs working -Regular supply of drugs. -Serving humanity			

			-Desire to contribute to human/community development -The material incentives received -Benefits to community -Respect and gratitude of beneficiaries, and popularity with them -Personal interest and/or sense of satisfaction -Social interaction it affords -Hope of future rewards from the government/ elsewhere -Family's support	-Benefits to participating children -Benefits to community -Gratitude and prayers from the people -Personal sense of satisfaction obtained -It is a form of self-help -Interest of the people -Respect given to CVs by CMAM beneficiaries -Health knowledge	understanding between HWs, CVs and community -A CV sponsored to go for pilgrimage to Mecca. -				
SUSTAINABILITY			-Although, programme is highly welcomed people are too poor to pay out-of-pocket for RUTF	-Active CVs express commitment -Active CVs express commitment	-Free drugs provided by LGA	-Help from community			
TRAINING			-Opinions -Included nutrition/health education, screening for SAM, community mobilization, conduct of CMAM clinic activities, counselling about dietary modifications		-Regular training and retraining being done. -Training not regular -Lack of training for newly employed HWs	-Training not regular -Training was conducted before the programme commenced. -All staff have been trained -Training not regular			

					-Trained on everything in the job -Training not carried out on everything	-Carried out only by Save the Children			
NUTRITION EDUCATION (NE)	-NE given on CMAM clinic days -NE not being done on CMAM clinic days	- NE done on CMAM clinic days -NE not being done on CMAM clinic days -NE carried out during ANC -NE not being done on RI days - NE given on CMAM clinic days but food not available.			-Advice given to women the need for making balanced diets for their children.				
GOVERNANCE – GUIDELINES, POLICIES			-Need for mechanism for identifying active volunteers -Need to conduct activities aimed at improving public perception of CVs -Reduce time commitment required of CVs possibly through a rotation of duties	-Contributions of CVs are not institutionalize d -Need to pre-estimate the expected number of people at CMAM clinic and plan accordingly -Re-evaluate time-burden for CVs	-Guidelines are provided to work with				
FINANCING			-Need for financial incentives for volunteers	-Need for financial & material incentives		-No funds for the programmed	-Transport-lack funds -CV paid	-Transport-lack funds -CV paid	- CVs complain about not being paid

			-End-users too poor to pay for services	(e.g. lunch on CMAM clinic days) for volunteers		-Funds available from State and the emirate. -Funds set aside -Financial help from an individual in the community.			- need to provide incentives to CVs for moral commitmen t - no money to provide transport / fares for CVs from distant villages - lack of payment by State causes stock out of RUTF -No budget line from State to LGA
HEALTH INFORMATION			-Need for timely information/ communication mechanism between community and health system	- Programme provides education and enlightenment about causes of malnutrition		- Monthly and or weekly reports are submitted -Reports written and sent via SMS. -Lack of mobile phone coverage affects sending of reports -Content of reports: number of people seen and milk distributed	Continue feed to end Benefits not known Target husbands Feeding problems Distrust - reasons	Continue feed to end Benefits not known Misperceptio ns of illness Reason not treated Feeding problems	

						-Too many reports required at the end of the month.			
PRODUCTS & TECHNOLOGIES		-Stock outs	-Need for adequate facilities and materials for activities	-Stock outs of RUTFs -Stock outs of other materials -Inadequate facilities for CMAM clinics	-Shortage of RUTF and other commodities - Products provided by an organization	-RUTF -Shortage of RUTF and other commodities - Experiencing shortage of RUTF not very common	-Stock outs	-Stock outs	- ACF transport RUTF & LGA pay for loading/ off loading - stock outs of RUTF (but not widely reported) - lack of treatment drugs - RUTF needs to be imported - transport of RUTF not a problem
HUMAN RESOURCES			-Need for more volunteers -Need for additional training/ basic education for volunteers	-Assignment of specific tasks to each volunteer to ensure efficiency and effectiveness -Need to address situations not covered by training -Scheduling of CV activities to reduce time-burden -Absenteeism of health	-Transfer of trained CMAM staff	-Lack of qualified and trained HWs.	-Increase staff -Dedicated staff	-HW continuity -Women CVs needed	- - need to retrain staff do to staff transfers -insufficient health staff (as for help from other facilities) - health workers from other facilities don't turn up - CVs leave when they find paid work

				workers at health facilities -Heavy workload for CVs -Fairer compensation for active CVs -Employ CVs -Time commitment required of CVs is discouraging					
SERVICE DELIVERY	-Long wait period -Large crowds	CVs and HWs do not humiliate-accept with open hands --Long wait period -Large crowds	-Need to ensure shorter wait times -Need for more comfortable clinic environment	-Long wait times for beneficiaries during CMAM clinics -Screening passersby make them uncomfortable -Need to ensure service provision begins early in the day			-Transport – arranged - Infrastructure improved -It runs well -Invasive	-Transport – arranged - Infrastructure improved -It runs well -Follow-up needed	- insufficient centres, high transport costs for mothers - parents disappointe d when their child not treated for malnutrition - no CVs in remote villages

Annex D General sub-themes and illustrative quotes presented by themes across interviewee strata

Colour code:

Both States: Green

Jigawa: Blue

Zamfara: Red

Summary of the themes & sub-themes that are presented below with quotes

Theme	Sub-themes
Benefits of programme	1. Rapid and visible improvements in child's health 2. An effective treatment of malnutrition 3. A more effective treatment of malnutrition than traditional treatments 4. Reduces infant and child mortality 5. RUTF is well accepted by sick children 6. Makes parents happy or relieved 7. Provides nutrition and health education; a better understanding of malnutrition and its causes 8. Saves household's health cost 9. Progress and benefit for the community 10. Improves health care facility's treatment of malnutrition 11. Reduces the number of sick children, and the burden on the health system 12. Encourages people to come into the health system 13. Improves the status/relationship of health workers with the community
Opinions about the health workers	1. HWs are useful 2. HWs friendly, respectful and welcoming to 3. beneficiaries 4. Hard working, committed , honourable 5. Lack continuity - deployment 6. Cooperative/ collaborative
Opinions about the community volunteers	1. CVs useful, good and hard working 2. CVs friendly, respectful and welcoming to beneficiaries 3. Committed & Honest 4. Programme relies on committed CVs 5. Need both men and women as CVs 6. Distrust motives
Opinions about the programme	1. Programme is well accepted 2. CMAM is valued because it effectively treats sick children 3. The programme is trusted 4. Some distrust the programme 5. The programme runs well 6. The programme is for poor people 7. Government is helping the people 8. Progress for the society 9. Programme is different from other treatment programmes – effective home treatment
Experiences in programme	1. Admission criteria and registration 2. Child examined and given medication and nutrition packs 3. Takes place once a week and it is crowded 4. Hygiene practiced at facility 5. RUTF is only taken by malnourished child (not shared). 6. RUTF is shared 7. RUTF is free and provided by health workers 8. Strong follow-up

	9. Sensitisation about the programme is done 10. Welcoming experience
Reason for attending CMAM programme	1. Visible health benefits 2. Come because breast milk is insufficient or the child is sick 3. Free treatment 4. Receive Education 5. Enjoy it 6. Husbands support/ permission
Reason for not attending CMAM programme	1. Stock outs 2. Husband does not give support/ permission 3. Lack of transport / distance 4. Do not believe it will benefit the child / distrust programme 5. Child is not sick and in need of medical treatment 6. Mothers busy/careless/lazy 7. Woman's attitude/ depressed 8. Shame / pride 9. Too many children to bring 10. Negative rumours
Reason for defaulting from the CMAM programme	1. Child has recovered 2. Child remains ill 3. Child's death 4. Child will not eat RUTF 5. Side effects 6. Mothers attitude / laziness / ignorance 7. Mother has other commitments 8. Mother's health / death / child birth 9. Distrust 10. Husband's permission 11. Transport, distance, costs, time, security & availability 12. Stock outs 13. Environmental factors 14. Long waiting 15. Strikes 16. Facilities 17. Negative rumours / health workers refuse them
Support and motivation for attendance	1. Husbands support / permissions 2. Other family members 3. CV/HW 4. Community leaders 5. God
Challenges	1. Stock outs 2. Inadequate facilities 3. Inadequate staff / staff taken from other facilities 4. High staff turnover (deployment) 5. Co-ordinating crowds of beneficiaries 6. Waiting times 7. Beneficiary disinterest/ disbelief/ reluctance/ noncompliance/ disobedience 8. Ridicule/ lack of support from some community members 9. Distrust of programme / believe treatment 10. inadequate Corruption 11. Culturally inappropriate tasks 12. Locating defaulters 13. Transportation 14. Security 15. Workload 16. Disruption of personal life 17. CV's Ill 18. For CVs/HWs - inadequate material incentives and delays in receiving them 19. CVs skills 20. Supervision / support inadequate

	21. Non-institutionalization of CVs, leading to limited influence within the system 22. Concerns that CVs are being treated unfairly
Recommendations	1. Convincing defaulters to resume attending the programme 2. HWs to re-enrol women who default 3. Reduce wait time 4. Husbands to give permission and support 5. Continuous supply of commodities/Avoid stock outs 6. No need to change anything 7. Continuous education to those who do not bring their children. 8. Not allowing defaulters back into the programmed 9. Continuation of the programme 10. Women empowerment. 11. Material incentives including cash, refreshments on clinic days for CVs 12. Better supervision and fairer compensation for CVs and HWs 13. Transportation for CVs 14. More education for CVs 15. Better information/communication system 16. Rotation of volunteer duties among CVs 17. Recruit more HWs 18. Improve public perception of CVs 19. Better planning and greater efficiency 20. Occupational assistance 21. Routine review of training 22. Adequate work materials for CVs 23. Transportation for CVs 24. More education/ employment for CVs 25. Monthly review meetings and reassessments 26. Education/advice/ meetings to sensitise, especially influential people like husbands or elders 27. Women's involvement, especially divorcees 28. Incentives for women (soap) 29. Provide transport 30. Improve infrastructure 31. Tolerance – don't send women away 32. Prevent corruption 33. Increasing the number of CMAM centres 34. Using the mass media to inform people on how the programme works

D.1 Theme: Benefits of the programme

Sub-themes	Quotes
Rapid and visible improvements in child's health	*R2: The ones that are taken the paste look strong and healthy." FGD6 (Mothers who Defaulted)* *R5: I have benefitted from the paste, as my child started swelling up on her legs and after we brought them here, the swelling went away. FGD7 (Mothers who Defaulted)* *"R: the reason why we send our children for this malnutrition program is because it is important. Also it is important. For one, when your child is not playing and is always lying down every day, if they bring him or give him that milk, he will definitely get better, he will play well in the room. (IDI_Father of default; Zamfara)"* *"R: For me, why I am in support of bringing my children for this malnutrition program is, the reason is; before it happened in my house and with my children, I saw some that were an example, we were seated when they brought their children and which somebody wouldn't want to hold them, but since they came for this program, they got well even before they came for the program, but before then, they couldn't walk and sometimes they have to be held, and they are not running outside as a result of attending the program, this has made it such that, and not only me, give others advice. When I see them with this kind of difficulty, it is important he comes and access this program that is helpful. (IDI_Father of non-defaulter Jigawa)"* R7: When my daughter felt sick because of Tamowa (malnutrition) and my friend advised me to take her to the programme, since then, it seems I just got an instant solution to the rashes, diarrhoea and other symptoms that have been disturbing her. The health officers in charge of the programme prescribed free drugs and also gave me plum pea nut milk to always give the child and now he is okay." FGD3 (Mothers never Defaulted) *R1: "It is the rate of transformation of their children's health. There are some of them that when they are brought, if you are easily irritated you will not want to touch them, but in few weeks of administering the product such children become so transformed and look unbelievably healthy………..." FGD9 (Female Community Volunteers)* R6: The benefit is that even if your child is purging, once he take the milk it stops instantly" FGD5 (Mothers never Defaulted) *R: Ah some of the achievement of this programme includes the immediate intervention of rescuing children who are already suffering from malnutrition (Tamowa) and within two to three weeks of treatment, the child becomes normal and regains his/her normal weight." IDI10 (Health Manager)*

	R3: My child has rashes all over his body but since the intervention of this malnutrition programme (Tamowa), you can see the rashes have disappeared from his body. We thank you all for your help to us. And I have seen a great improvement in the health of my child" FGD3 (Mothers never Defaulted) R1: We have benefitted from it because my child is now stronger and healthier and has gained weight and he can sit around and for that I am grateful to you and to God. He is much healthier now…." IDI44 (Mothers who Defaulted)
An effective treatment of malnutrition	*P5: "What motivated us is because, our families that have been sick and we have been searching for the clue, and now this milk is helping us and our children cure this malnutrition and that is why we are sending mothers to go and inform their friends to bring their children. And in Gods mercies we see children, even during our rounds, we inform them on what is given and we see children getting well, that is why we came into this program, it is helping us and our children, Sir." FGD23 (Male Community Volunteers)* *R: Sincerely we have benefited and we are happy and again we have seen the worth because when we started we got a lot of TAMOWA cases before this programme came but when the programme started with the help of God this organisation has helped us, our younger ones our older ones we got treatments and are healed from the problem of TAMOWA it has shown that truly this programme every week we give food for issues of mal-nutrition and you see now truly it has helped so much children every week we get to see to about fifteen children who have been cured from this* *TAMOWA issue……. IDI22 (Frontline Health Worker)* *R-Unknown: (Child crying) yes we haven't seen any one that came with a child and the child did not recover from his/her illness." FGD1 (Mothers never Defaulted)* *R: "What attracts me in it is that we have seen the benefit of it, and anyone in this town has seen it as a blessing because anything that is beneficial when it starts you see its light and we have seen its light more so it is our community and we see healthy relief from people of this town God has granted us health at the cause of this work." IDI42 (Male Community Volunteers)* *R6: "What impresses us about the malnutrition work is that before we use to have 200 cases but now the malnutrition cases are decreasing that in this week we only had 60 cases. Malnutrition is nearly gone." FGD11 (Female Community Volunteers)* *R5: even the ones that don't bring their children also see how useful it is." FGD6 (Mothers who Defaulted)*
A more effective treatment of malnutrition than	*R: Firstly, the greatest benefits to beneficiaries is that it has brought permanent cure to the problem of nutrition (tamowa) associated with children. Secondly, parents no longer have to expend their resources on drugs that never brings cure*

traditional treatments	*to their children's aliments. Thirdly, parents now have relief from patronage of herbalists and traditional health practitioners with their lies and empty diagnosis and prescriptions." IDI11 (Health Manager)* *"R: Yes, the kind of improvement we see is that; earlier, when this kind of plague comes in, we use traditional medicine and our children die, but now this program, we are thankful to God since now you will see the children averagely, when he is given accordingly if he is brought as long as he has it, just like those that are up to six to seven months, eighteen or twenty one, as long as a child is given, we see the improvement very much because you will see that a child has changed drastically. (IDI_Father of non-defaulter Zamfara)"* *R: The programme is useful to those who have health related challenges especially in the aspect of malnutrition. If the programme is able to address these issues of malnutrition (Tamowa) in the community, then the programme is effective and useful. We all have benefited in so many ways from this programme. Ah …short "pause" ………..parents attribute the issue of malnutrition (Tamowa) to be witch craft, demons, or evil spirit, because a child is eating and yet the child grows thin, but once the parent bring the child to the hospital, it takes two to three weeks for the child to regain his normal body weight and to be sincere and honest this particular programme is useful to our people." IDI10 (Health Manager)* *R5: "What I like is the way God remembered us and relief our suffering from malnutrition/hunger. The way you pointers were able to point and locate us is a welcome one. Before your arrival, I had spent a lot of money treating my child thinking she was suffering from spiritual attack. All our children are in good health now. That is all I like in about this malnutrition/hunger programme." FGD16 (Female Community Volunteers)* *R4: "What we like about this programme is the availability of this milk given to children. A woman said that she spent about #4000 to treat her child but no result was achieved. Those who invented the milk and those of you go about to fellow up we say God bless you. Those carry out this work are not being paid so as you can see is very interesting." FGD22 (Male Community Volunteers)*
Reduces infant and child mortality	*R: Sincerely speaking, government has for some time now being rolling out programmes that affects children and women. Honestly there is not any that has had the greatest impact on their well-being like this nutrition programme (Tamowa). Parents are deriving maximum benefits from the programme, and we have received feedbacks of children with no hope of surviving that had been cured, thanks to the coming of this nutrition programme (Tamowa).We are indeed grateful to God, the government and all other relevant organizations that had brought this nutritious food to our community. It has brought hope and injected life into those who could have being dead. We are grateful." IDI11 (Health Manager)* *R6: I thank God, when I brought my child here; nobody thought that he would survive. Look at him, today he has survived." FGD5 (Mothers Never Defaulted)* *R2: "Assalam mu alaikum (Mentions Name). concerning this tamowa programme we are grateful to Allah-Alhamadu Lillahi. The programme has brought about great*

	improvement to our existence as a whole. In the past the rate of infant and child mortality had been alarming by Allah has through this programme, stemmed that tide. As my colleagues had earlier said, our women are now being taught the best ways of taking care of children with utmost care and cleanliness. Assalam mu alaikum." FGD18 (Male Community Volunteers)
RUTF is well accepted by sick children	*"R: The reason why we take them for this malnutrition program is one; any child that is sick, it is not every kind of food he eats, you will keep trying and the child will be spoiling, so you see it is that milk that will continue to help him and so on (noisy background) (inaudible segment) this is the reason why we bring the child for malnutrition, and to the Glory of God we have seen the progress in it, and so for this malnutrition exercise I am pleased with it because I brought two children and they are well...... Good? That milk is good. The milk that is given to the child to drink and get better, you see, it is a good structure. (IDI_Father of non-defaulter Jigawa)"* *R1: Yes……… before, my son doesn't eat anything except I force him but now because of this programme and the advice I got from the health officials, my child now eat well with the help of the plum pea nut milk." FGD3 (Mothers never Defaulted)*
Makes parents happy or relieved	*R: these women come and we interact with them, they tell us how happy they are……………." IDI16 (Health Manager)* *R: "………….You will also observe that people that have attended this hospital in the past express their joy as a result of the great improvement and wellbeing of their children through this programme." IDI18 (Frontline Health Worker)* *R: Relief (laughs) can you see I have relief. IDI43 (Mothers who Defaulted)*
Provides nutrition and health education; a better understanding of malnutrition and its causes	*R- It has taught us a lot one of this lessons is in the aspect of hygiene specifically the importance of keeping our hands clean when we are to Breastfeed, give medication or any form of food to our babies." FGD1 (Mothers Never Defaulted)* *R1: The benefits, the benefits are that we have been enlightened and our children have gotten healthier." FGD7 (Mothers who Defaulted)* *P4: "(mentions name) this program fascinates us very much, why I said so is because, we have seen changes since time past, because there are many children who were sick and it looked like it was a different ailment, not knowing the problem was hunger and other complications, and formerly we didn't have such enlightenment, but now when we are going round we are seen as health workers and we give advices on these problems and it is important because now you hardly see a child with such problem……………………….." FGD23 (Male Community Volunteers)* *R: unlike before when they do the traditional way. They give the stomach of an animal, by squeezing it and they drink it. They bath with it. They go to traditional healers. But they are now convinced. They know when a child is sick and it looks like malnutrition. If you say my father should buy drugs he will say no, they should go and check if it is malnutrition so they can give the child milk. They believe that it is only the milk that can heal that thing." IDI16 (Health Manager)*

	R: People have come to understand that malnutrition is real and that is why they do not hesitate to bring their children whenever they see any sign of illness in their children." IDI15 (Health Manager) *"R: they have increased their knowledge. (IDI_Father of non-defaulter Jigawa)"* *R: They are taught that before eating they should wash their hands, and importance of breastfeeding a child till 6months, since they are women they are taught about relevance of antenatal during pregnancy and also the antenatal is also done to them and they are told to always come for the antenatal so that their health and that of the baby they are carrying is secured." IDI24 (Frontline Health Worker)* *R: It has taught us a lot one of this lessons is in the aspect of hygiene specifically the importance of keeping our hands clean when we are to Breastfeed, give medication or any form of food to our babies." FGD1 (Mothers never Defaulted)*
Saves household's health cost	*R4: For our husbands, they have been helped as if it was not for this program they will be in another situation looking for money to pay for the children's health." FGD7 (Mothers who Defaulted)* *R: For example, all the benefits and activities associated with tamowa are free, this is not the case with the other services. You will agree this is a major difference. IDI11 (Health Manager)* *"R: the benefit that is gotten from that program is; on the part of mother and father for that child or children, the benefit is, they do not spend money on looking for medicine on the assumption of treating a different ailment. So that benefit is good and it is free and then the joy regarding those children is what improves their health because some children don't have malnutrition but they want to collect it, but then if they are not in that line, they just have to take heart. (IDI_Father of default; Jigawa)"*
Progress and benefit for the community	*R9: We have made progress and our community has progressed. People from the neighbouring town who heard about this programme have achieved from it. FGD5 (Mothers Never Defaulted)* *P2: "well what motivates us is; I see that it helps our families, relatives and also grandchildren, we have seen that it has really advanced and helped our community, and that has really strengthened the work." FGD23 (Male Community Volunteers)* *R: They regard it as a progress to this community." IDI15 (Health Manager)*

	R5: "First of all, Salam my name is (mentions name). What impressed us most about this program is how this organization is helping us a lot here in our community to deal with the malnutrition problem. We understand that this is for our benefit, it is for our children, our community that us getting the help. What impressed us the most to volunteer is seeing after giving the malnutrition pack we see satisfactory results and there is no problem, the people don't need to spend money or anything like that and it is brought to the people so that they can benefit from it, this is what impressed us about the program". FGD24 (Male Community Volunteers)
Improves health care facility's treatment of malnutrition	*R: My opinion is; truly on this work of malnutrition, there is progress, just like it was formerly, we can see that formerly you only hear it in other countries or far places but it has come to us now, right up to (mentions the town). Truly, the organizers of this malnutrition program bring everything that we need. What we need from them is to strengthen us more such that whatever we need to learn from the work, it should be brought to us and then we will continue with the work as is expected of us, I will take it that just like before, in 2013, the first month-January to August, we had between one hundred to two hundred patients, but now they are not up to sixty to seventy because they brought a program within this CMAM program IYCF that is done and it has reduced the population of malnutrition cases and there are changes and the work is much easier and there is corporation, everything we need is provided on this work, to God be the Glory." IDI20 (Frontline Health Worker)*
Reduces the number of sick children, and the burden on the health system	*R: When I look at this program, the victory we have is like I told you earlier, we usually have a crowd in the hospital, children are always sick, but since the coming of this organization, to God be the Glory, there is a reduction of this crowd because this malnutrition comes with other issues and also by giving this milk, there has been progress, now they thank us." IDI12 (Health Manager)* *R: Lessons learnt is quite important because it safeguards the health of our children." IDI18 (Frontline Health Worker)* *R: Peace. My opinion is; firstly I want to give thanks to God Almighty that helped us that this program for malnutrition is brought to this local government of (mentions LGA) and so, we have weaknesses, problems, because between man and God there are many things, this malnutrition, from the its inception, they helped us because formerly, in the hospital, in a day, we always have many people with cases of sickness, from this to that. But since the inception of this program of malnutrition in this local government, we have had progress, and then many problems have reduced, of sicknesses here and there, the distribution of this milk has also helped, there is nothing we can say but to thank God and thank the organizers who thought of this idea for this local government." IDI12 (Health Manager)*
Encourages people to come into the health system	*R4: People come here from 26 towns after Galadi, after they have heard good news about the program from the people of (mentions name of town)." FGD7 (Mothers who Defaulted)* *R: ………..Now our referral is almost from mother to mother from the communities. You know there are some places our CVs can't go. Like Sokoto state some go, Ruwan Baure. So you see anyone that comes and sees the benefits, she sends another woman. The information they give is that they should also come and collect." IDI16 (Health Manager)*

	R6: People have benefitted from the program, the place is always packed" FGD7 (Mothers who Defaulted) *R: it has attracted high turnout. First of all many people come to the hospital. Isn't it" IDI16 (Health Manager)* *R: These signs are quite numerous because if today you want people to gather in this hospital for anything that relates to nutrition programme (tamowa), the turn-out of people here will be massive………." IDI18 (Frontline Health Worker)* *R: Because of seeing its importance and also how people turnout/come out because of it. Appointment days for this hospital are Wednesdays and Thursdays. Wednesdays and Thursday are the days the hospital experience highest attendance and this is as a result of the impact of the nutrition programme (tamowa). "IDI18 (Frontline Health Worker)*
Increases acceptance of other health services	*R4: "……………………..The women and their husbands are also happy about this program and grateful and they pray for the success of the program and the people behind it because of the improvement they are getting. Before in our area people don't accept the polio vaccination but after the coming of this program we thank God you will see the women bringing their children and for the husbands that don't want their women to come out you will see them bringing their children even if they are newly born for the vaccination drops. We thank God." FGD24 (Male Community Volunteers)* *R6: "Oooh… a very big impact (exclamation). You see, before now issues relating to health and going to hospital is not widely accepted amongst our people, reason being the way they are usually treated when they go to the hospitals. This is more so because a sick person is easily irritated, impatient and discouraged. The coming of this program has changed that and you now have people coming in their number at the least prompting, confident they will be attended to. This is a major impact area we have observed." FGD17 (Male Community Volunteers)* *R1: We use to go out for intervention, the numbers of people coming to this hospital have increased and we have made progress for instance during immunization, the number people have increased because people come from far places come to thank us." IDI15 (Health Manager)* *R: "……………..It has also added to my work as a health worker. For example, I have even forgotten about the RI I use to perform, the day I do RI has become the day I do OTPD because I don't have problem because the mothers of the children are given injection and are coming to collect the milk. Now I have no complaint and my defaulters are the people that are left." IDI17 (Health Manager)*
Improves the status/relationship	*R: it has also strengthened the relationship with the community. When we are passing by, they say that the people giving the milk over there. Isn't it? IDI16 (Health Manager)*

of health workers with the community	*Then secondly it has encouraged togetherness amongst the health workers and the people in the community, because the people in the community have now gotten what they never expected, and for that, the health workers are now seen with much respect. That is why there is trust between the health workers and the people in the community and it isn't because the work is only for (mentions place) or (mentions place) No it even includes our neighbouring communities (mentions place). They also know we do hold this program they also range from (mentions people) it involves every one with a problem when brought from The bush and given treatment they get well." IDI14 (Health Manager)* *R: Well, the main importance here is because formerly you don't hear of this but now there is progress on it, men and women pray for us because of this program and every time you find that they are thankful and they look up to us." IDI20 (Frontline Health Worker)* *R: My opinion is that let this programme is widened further, because this programme of giving out milk for free has brought dignity to us……………." IDI17 (Health Manager)* *R: My opinion on this program truly, this program is of joy to us and my opinion is that it would be done always until there is no trace of a child that you will see with this disease of hunger, that is my opinion on this program, that it would be continued and expanded more, just like in the hospital of (mentions town) that it is done, now in the future, every other hospital will be doing this kind of program, it is not small progress since from many places people come for this disease of malnutrition/hunger and God in His mercies, every woman we place on drugs and that plumy nut, through God's miracle, there is progress and that is what fascinates us, and then how we are being looked upon by the public with dignity because we look after them, so this is what has added to the way I feel that if it is my opinion, let it be that everywhere, this work is expanded." IDI21 (Frontline Health Worker)*

D.2 Theme: Opinions about the health workers

Sub-theme	Quotes
HWs are useful	*R5: They are useful. They are given the malnutrition paste to distribute to us and when they are out of stock they will call for more. This is their use" FGD6 (Mothers defaulted)* R: "the changes that you are implying, in all honesty we do not have any challenges with the workers; R: because there are some that help during the days of the programme even when it is not their responsibility, but they will come and assist." IDI(Fathers never defaulted Jigawa)
HWs friendly, respectful and welcoming to beneficiaries	*R1: They are, you mean are they friendly? Yes they are. They always ask us how the child is and how he is feeling, they always ask me about this when we come and they are always smiling" IDI44 (Mothers defaulted)* *R4: I brought my son for 4-5 weeks and he got better and you know how it is, I was full of joy, the health workers did not maltreat me or envy me. But you know we are human and I was so full of joy that my child was healthy and running around playing that I didn't bother to come back, but we thank God" FGD7 (Mothers defaulted)* *R5: To be honest we have seen the benefits of this program as the child has not been feeling well and you bring him, the health workers will welcome you with open hands without any humiliation and they gave it (malnutrition paste) to us and our children are now healthier as you can see" FGD4 (Mothers never defaulted)*
Hard working, committed , honourable	*R: Ahh, there is nothing I will do except prayers, because these are good representatives that are also honourable, the health workers and the volunteer groups of the place, they handle materials brought to them honestly for the benefit of the people of Wurno. This is one of the reasons why we are praying and telling others to come there, because of the honest way materials are handle" (IDI_Father of default; Jigawa)"* *R: "these workers and volunteers are ok. They are dedicated and work 100 over hundred." (IDI_Father of default; Zamfara)"*
Lack continuity - reemployment	*R: The work they do, between man and God, they work together and there is no problem except sometimes, they are many in the unit such that they are asked to shift, these ones come this week, next week others come" (IDI_Father of non-defaulter Jigawa)"*
Cooperative/ collaborative	*R: so when they come, even though they are many, there is hardly any conflict among them; R: and even if there were troublesome ones among them, it will be difficult because several women come here, one's child will urinate and another will defecate, they have to bear all of these together and cooperate with themselves. So you see, we do not have any need for them (the workers) to be changed them or any of such things" (IDI_Father of non-defaulter Jigawa)"*

D.3 Theme: Opinions about the community volunteers

Sub-theme	Quotes
CVs useful, good and hard working	*R1: The work that they do is useful because when you come you will give them the child to hold on to while you go onto the scale and then they will give you the child so that they can be weighed. They are there throughout the day" FGD6 (Mothers defaulted)* *R2: They go house to house telling us to bring our sick children, the malnourished ones. We have some volunteers that go around house to house looking for malnourished children, when they see a sick child they examine the child and if the child is malnourished they will give us a piece of paper and tell us to come to the hospital.* *R3: They also enlighten us at wedding ceremonies or naming ceremonies, they tell us to help ourselves and our families by bringing sick children to the hospital" FGD7 (Mothers defaulted)* *R5: If we default they come to our homes to find out why" FGD7 (Mothers defaulted)* *R: honestly what they have done is very good." (IDI_Father of default; Zamfara)"*
CVs friendly, respectful and welcoming to beneficiaries	*R1: They don't look down on us, they don't humiliate us, they don't shout on us, when we come they welcome us with open hands. They will bring some water and show us how to do this and that with no problem. They have never maltreated us or humiliated us and they advise us on how to take care of our children" FGD9 (Mothers defaulted)* *R7: They are good to us, they don't segregate, they do their work as expected and we always meet them here. So we are really enjoying them" FGD7 (Mothers defaulted)*
Committed & Honest	*R: these workers and volunteers are ok. They are dedicated and work 100 over hundred."(IDI_Father of default; Zamfara)"* *R: Ahh, there is nothing I will do except prayers, because these are good representatives that are also honourable, the health workers and the volunteer groups of the place, they handle materials brought to them honestly for the benefit of the people of Wurno. This is one of the reasons why we are praying and telling others to come there, because of the honest way materials are handled" (IDI_Father of default; Jigawa)"*
Programme relies on committed CVs	*R: Sincerely this programme is compulsory with the CVs because it is a huge work which I think it cannot be run without them, because if they are not part of it I don't*

	think the health workers we have can alone coordinate/run this programme without the Community Volunteers" IDI18 (Frontline health worker) *R: Progress to put hands together when government helps with something to bring development to the land like this, there is a need to find people that are selfless and dedicated to duty to be put there" (IDI_Father of default; Zamfara)"*
Need both men and women as CVs	*R: like men and women, anyone can do it, since a woman can enter homes and advice people and then for the men, some of them can meet with others where they gather to sit and give their friends advice" (IDI_Father of non-defaulter Zamfara)"*
Distrust motives	*R2: How can I do what they will not pay me? I don't want to do something like that and I don't care to know what they are doing" (IDI_Father of default; Zamfara)"*

D.4 Theme: Opinions about the programme

Sub-theme	Quotes
Programme is well accepted	*R5: even the ones that don't bring their children also see how useful it is" FGD6 (Mothers defaulted)* *R3: None (nothing bad)" FGD6 (Mothers defaulted)* *R5: God bless them because to be honest we are very happy about the program." FGD4 (Mothers never defaulted)* *R2: "The poor among us with children are those most happy with us but the rich have no reason to be because even before the government begins to help they were taking care of their children. But the poor make effort to give us gifts from the little they have because of happiness. The poor, praise to God, they are happy" FGD15 (Female Community Volunteers)* *R5: "You see when polio people come they hide their children but when they see us they rush out saying here they are, here they are! Even adults come out to take measurement. This milk is well received, true" FGD15 (Female Community Volunteers)* *R: well if I describe to you what I do, there is no program we do that has gained lot of acceptance by the people like this one. Example when they brought the nets it further called the attention of pregnant mothers to come to the hospital. But sincerely, there is no service we provide in the hospital that brings people like this" IDI16 (Health Manager)* *R: well I wouldn't say 100 per cent, but to a reasonable extent of 90 percent yes" IDI11 (Health Manager)*
CMAM is valued because it effectively treats sick children	*R2: "What attracted me to this programme is before the coming of this milk if you see some children, you would almost cry for them. But as this milk came, children have survived. If you see them behind their mothers, you won't believe that they are from the country side" FGD22 (Male Community Volunteers)* *R3: "It is the transforming effect not only on the children but their mothers as well. When a child is looking so malnourished and weak the mother will not be looking good as well. But after receiving the tamowa food and taking it as prescribed both mother and child look better and everybody is happy" FGD9 (Female Community Volunteers)*

	R4: "Truly the fascination is when a child is sick and almost dying and then he comes out well, chubby and fat and then they say so this work you do is very important? God bless you. It is seeing the result that fascinates them" FGD21 (Male Community Volunteers) *R1: It is a good program and it helps our children a lot. When I first brought my daughter she was sick she was all….." FGD7 (Mothers defaulted)* *R: Sincerely speaking, government has for some time now being rolling out programmes that affects children and women. Honestly there is not any that has had the greatest impact on their well-being like this nutrition programme (Tamowa). Parents are deriving maximum benefits from the programme, and we have received feedbacks of children with no hope of surviving that had been cured... It has brought hope and injected life into those who could have being dead. We are grateful IDI10 (Health Manager)* *R: Ah…short (Pause) to be honest with you the programme is going on well, because from my observation on how people gather here every Wednesday, it shows how effective the programme is, Because in a long-time now I have not witness any health related programme that this community accepted and participated in like this programme. Ah short "pause" if not for the effectiveness of the programme , no woman will be allowed to come out and participate in this manner" IDI10 (Health Manager)* *R6: "There are times when some children are brought here with all the evidence to show that they are malnourished and most unwell, some of them look so thin, weak and pale but after being treated for two to three weeks thereabout, they are totally transformed. This is gladdening and very encouraging and motivating to us" FGD9 (Female Community Volunteers)*
The programme is trusted	*R1: Everybody trusts it since they come to the hospital to collect medicine. Are we the ones making the medicine? You are the ones that do it. IDI44 (Mothers defaulted)*
Some distrust the programme	*R2: I don't buy the idea of people coming to start talking to my wife under the pretence of children's health or that they are healthy volunteers. Let me ask you, would you like it when people just invade your house and start talking to her? (IDI_Father of default; Zamfara)"* *R5: Some don't agree because they call it the hunger sickness" FGD2 (Mothers never defaulted)*
The programme runs well	*R: Truly, what is happening, I cannot say anything ugly is happening in the running of that program except that every child that enters that program, to God be the Glory, they are thankful and full of praise" (IDI_Father of default; Jigawa)*

	R: there is none, not even a little, there is no problem with any part of the tamuwa programme, not with me or her or the child she goes with" (IDI_Father of non-defaulter Jigawa)" *R: Yes this (Tamowa) Malnutrition programme is going on well and it has been a while that I witnessed a health related programme." IDI10 (Health Manager)* *R: well these people working at the hospital, we have never seen anything that is not good with what they do. Because they give that thing regularly like they are supposed to without being selfish." (IDI_Father of default; Zamfara)"*
The programme is for poor people	*R6: Like they said when they make the announcement to go and get examined for malnutrition in the hospital, the only kind of people you will see is us, the poor and they will say we are poor and we have allowed our children to go hungry and that we should hurry and get treated for the malnutrition" FGD2 (Mothers never defaulted)*
Government is helping the people	*R: Toh, anywhere you go, God willing, you are moving from area to area, you hear people saying 'they have helped, government has helped', God willing" (IDI_Father of default; Zamfara)"* *R3: "…So to be honest this malnutrition program has been welcomed more than any other aid that the Government is providing..." FGD24 (Male Community Volunteers)* *R: Sincerely speaking, government has for some time now being rolling out programmes that affects children and women. ...We are indeed grateful to God, the government and all other relevant organizations that had brought this nutritious food to our community. It has brought hope and injected life into those who could have being dead. We are grateful IDI10 (Health Manager)*
Progress for the society	*R: progress, not a small progress, there is great progress for the society" (IDI_Father of non-defaulter Jigawa)"* *R2: "…………………The programme has brought about great improvement to our existence as a whole………………..." FGD18 (Male Community Volunteers)*
Programme is different from other treatment programmes – effective home treatment	*R: Honestly when you look, you will see a difference. The difference is; the work of malnutrition and this other one, the routine hospital work is you see when a patient comes, he is checked and when it is necessary for him to be admitted, we admit him and continue giving him drugs and so on, but this malnutrition program, when a child is brought and he is malnourished, if he has for instance fever and is vomiting, you see we will write drugs for him and give him that milk and show the woman how to give the child, and they go home. So you see the difference" IDI12 (Health Manager)*

D.5 Theme: Experiences in programme

Sub-theme	Quotes

Admission criteria and registration	*R2: They examine the child to make sure he is healthy and If the child is malnourished they will tell you that the child is malnourished and if not they will also tell you" FGD7 (Mothers defaulted)* *R: when children are brought and they are registered, if the register if filled. They will follow the queue and follow the register the parents of the children, male and female. They will give them according to what a child should get. That is what I know? (IDI_Father of non-defaulter Zamfara)"*
Child examined and given medication and nutrition packs	*R1: When they were going to examine him, they asked me to take off his top, I took it off. I went on the scale they weighed me and then I went on the scale with him and they measured his weight. They asked me for my name and I told them, they asked me for the name of the town/village I am from and I told them, they wrote it. They gave me a pack and I gave it to him, they then gave me the powdered Ampiclox together with some injections" FGD6 (Mothers defaulted)*
Takes place once a week and it is crowded.	*"R: Yes I can explain. First, this programme, for example, happens on Thursday in this town. And the people of the communities around us arrive here even before our morning prayers. This is one of the reasons why we said ahh, here are these people from afar, from ("mentions communities") but they come to our place before we wake from sleep just to collect this thing…." (IDI_Father of default; Jigawa)"*
Hygiene practiced at facility	*"I: Toh, in truth they are coming. As she told me, my wife, any time she comes they wash the hands of the children, they pick them one after another and prepare them to be given to drink, and they queue up in this place. God willing, when they come, they do not leave the child dirty, when there is refuse they burn them and, God willing, they are still doing this thing" (IDI_Father of default; Zamfara)"*
RUTF is only taken by malnourished child (not shared).	*R5: No we don't, we don't give it to anyone." FGD7 (Mothers defaulted)* *R: Never, where it is received people are warned not to give anyone, even the mother must not touch it, it is not hers it is the child's. And we followed this instruction, and it remained that way up till the end." (IDI_Father of default; Jigawa)"*
RUTF is shared	*R1: Sometimes we give our children some."FGD2 (Mothers never defaulted)*
RUTF is free and provided by health workers	*R1: They don't ask us for any money. They tell us that it is free. They bring it as donations and when they give it to us we thank them for it. We are also grateful to you the people that bring it thank you and God bless" IDI43 (Mothers defaulted)*
Strong follow-up	*R: Well, like I said there is nothing, that is in my own opinion, I have not seen any changes to be made, the staffs are doing their best and everything is going according to plan, such that when they find someone who doesn't come regularly, they stop her and scold her and if she is not giving that milk according to instruction, they stop her and warn her to give the milk accordingly because that is why there is little or no progress, why is that? And then for those that give it accordingly, we see the improvement, but you don't, maybe you don't give it well, and so they warn her and gradually she will adjust. (IDI_Father of non-defaulter Zamfara)"*
Sensitisation about the programme is done	*R: the understanding of my family on this program, it is something that is like, in this town, there are some women that have taken this program upon themselves, going house to house and sensitizing women and the men too who were selected and enlighten the men also, so if you as a man hears, you can go into your home and inform your family, and if you have that ailment, you take your child to the hospital for checkups. (IDI_Father of non-defaulter Zamfara)"*

Welcoming experience	*R5: We have never experienced it, every time we come they welcome us" FGD4 (Mothers never defaulted)*

D.6 Theme: Reason for attending CMAM programme

Sub-theme	Quotes
Visible health benefits	*R: The reason they take these little children for the malnutrition program is, some of the reasons is that; at first we didn't understand the reason why children were always losing weight, and when this happens, they soak so many things and give them. so when they brought this program of malnutrition that is when they explained to us how it is and when they come, it will be okay and they showed us the picture of a girl child in that state and then after when we confirmed that process, we joined the campaign that anywhere we see that girl or boy, we will try to tell the father or mother with such a child to bring the child to the hospital here in (mentions name of town, every Thursday they bring him and weigh him on a scale, and his weight has reached a particular, since we don't know what is happening. If it is confirmed, that is when they will bring that medicine for malnutrition and give the child, and to the Glory of God, there is progress 100%, and every child they bring, because if it is sold, definitely it will be sold expensive, but it is given free. (IDI_Father of default; Jigawa)"*
Come because breast milk is insufficient or the child is sick	*R1: The breast milk was not enough for her and it is not good.' FGD8 (Mother of defaulted)* *R4: When some children are born some of them do not get enough breast milk and in some cases there is no breast milk at all. There was a child they brought here a couple of days back; they said the mother has not been feeling well since she gave birth. There are some that collected the malnutrition pack (nutritional pack) a while back, my child is older than them but they are bigger that is why I came to this program and if it wasn't for the spots (measles or chicken pox) he would have been healthier by now. We pray to God for our children to be relieved from this spots.: FGD6 (Mothers defaulted)* *R2: The reason is that my child was sick, he was malnourished, he became skinny and he had diarrhoea and a fever and his head became big. I was told to bring him to the hospital to get checked up and so I did and they gave him the malnutrition paste and as you can see he is better now" FGD4 (Mothers never defaulted)* *R1: He became sick. He had a fever every day and he had diarrhoea. We took him to the General Hospital where we spent four days before being discharged. After about month it was back, so we went to the secretariat but there was no bed so we came back here and got admitted, after 8 days they discharged us. We went back home and he felt better for a while but then it came back and that is when they sent us to the malnutrition program." IDI44 (Mothers defaulted)*
Free treatment	*R: Ah ah, hmmmm, there are a lot of differences between this programme and others in the sense that this programme is free without paying for any cost considering the poverty that is prevalent in our communities and once people know that treatment and services are free they will be happy" IDI10 (Health Managers)*
Receive Education	*R: because they know how beneficial the program is, they do get some explanation about some issues, they also tell them to be careful about some certain things being given, and she is being told on how to administer the drugs and milk . (IDI_Father of non-defaulter Jigawa)"*
Enjoy it	*R: when you attend a program, you see when you do something and you enjoy It, or someone tells you that they enjoyed it you will want to attend it always. (IDI_Father of default; Zamfara)"*

Husbands support/ permission	*R3: They (husbands) should always allow us to bring our children to the hospital. FGD8 (Mothers defaulted)* *R4: Whenever I tell him that I want to bring my child, he tells me to go and come back in peace. FGD8 (Mothers defaulted)* *R5: Let him always approve my coming here. FGD8 (Mothers defaulted)* *R6: He always allows me to come to the hospital" FGD8 (Mothers defaulted)*

D.7 Theme: Reason for not attending CMAM programme

Sub-theme	Quotes
Stock outs	*R: Indeed there is no problem greater than this [money – suggested by interviewer] because anyone who comes today and does not get [plumpynut], a week later he does not get; as poor as some are they spend up to 600 naira in one day, just for transportation, apart from their feeding, apart from the work they left undone at home. This is among the things [stock outs] that discourage people but if government or this organization will continue to bring it without failing, God willing, this too will disappear. (IDI_Father of default; Jigawa)"*
Husband does not give support/ permission	*R: Well, yes may be there are some that their husbands stop them, now there was someone who you told to come along and he refused, he ran away, he thinks they are going to do something to him. (IDI_Father of non-defaulter; Jigawa)."* *R2: Some their husbands discourage them." FGD5 (mothers never defaulted)* *R: I don't know the benefit of the programme to this community, because I was just sitting at home and I was called to come with my family to the centre. I had to stop my wife not to go to the Tamowa centre again because I don't see the benefit of such a programme in my family life (IDI_Father of default; Zamfara)*
Lack of transport / distance	*"R: God willing, you know if you do not have a vehicle, and the roads have a problem. (IDI_Father of default; Zamfara)."* *R: The problems are, when someone finds himself very far, some find themselves in this place as far as Boji, Gwaram, like I am telling you, and Ningi. Some are struggling to bring themselves, transport to bring themselves, because some of their husbands do not even have what to eat that day, talk more of paying their transportation. This is why some fail to come but not because they don't want to. (IDI_Father of default; Jigawa)."* *R6: The problem is with the distance, if it is on a motorbike you can come along with them, you can put one on the back and hold one in your arms but there is no way you can carry a third one.: FGD7 (mothers defaulted)*
Do not believe it will benefit the child / distrust programme	*R5: Some women don't want to take their children to the Tamowa programme because of their belief." FGD44 (mothers defaulted)* *R: ... The reason why I don't care about the programme is because I have never seen a child that was healed of malnutrition by just administering the milk. Most children still remain the way they are without any changes in their health. (IDI_Father of default; Zamfara)."* *R: Yes when it began we faced problems from people saying we are given drugs without knowing what it would do to our children. We faced this problem when we started, we were patient, they were doing it, when we clocked two weeks, three*

	weeks, we did the first, we did the second, some collected and left. When the third week came every woman saw the child she knew has now become fat-faced and big. Then people said this programme that we thought was dangerous is actually good let us support and continue taking these children. *R3: For some people that is the reason (distrust)." FGD6 (mothers defaulted)*
Child is not sick and in need of medical treatment	*R: Okay, like what I wanted to mention earlier, you will see some don't want to bring their children because people will perceive it is hunger or something that stops them from coming and I know that the solution to this is mobilization, those problems happen a lot, a man will stop his wife, or when she comes, after three to four days she stops coming and we don't know what happens we just observe that the person becomes a defaulter. We sometimes do not know the reason this work is tedious, not the malnutrition exercise or normal hospital work, there are some activities we are engaged in that is time consuming." IDI20 (Frontline health worker)* *R1: I don't know. For us people think that is because the child is dirty or because the child is possessed that is why the child is malnourished and as a result they will be given him traditional medicine. I have only gone to the traditional Doctor once apart from that I always go to the hospital. I always take him to the hospital, all the time. He has been sick for eight months without getting better until we came to the malnutrition program before he got better. IDI44 (mothers defaulted)*
Mothers busy/careless/lazy	*R1: "Some is as a result of laziness, while some are very busy. We thank God that we are beneficiaries of this program." FGD5 (mothers never defaulted)* *R4: "Some are busy with their occupations." FGD5 (mothers never defaulted)* *R3: "They are just careless." FGD8 (mothers defaulted)* *R3: "Some don't like bringing their children because coming here is like a waste of time to them." FGD5 (Mothers never defaulted)*
Woman's attitude/ depressed	*R: "well, it depends on some men and some women. Some women, when their husbands say they should take their child to the malnutrition program, she will say they won't go and another woman will say she will go.... R: well, you know how women are ...."(IDI_Father of default; Zamfara).*
Shame / pride	*R3: "Some feel ashamed to bring them to the malnutrition program and feel that it is better for them to do what they can but they will not bring them to the malnutrition program." FGD2 (Mothers never defaulted)* *R3: "It is their lack of care and for some it is pride."FGD4 (Mothers never defaulted)* *R4: "It is the men that don't allow it; they say it will harm them and that people will say that it is those that don't have (poor) that will go to the malnutrition program." FGD3 (Mothers never defaulted)*

Too many children to bring	*R5: "Some parents, some mothers can have 2-3 children that are qualified to attend the program but they bring one or two and leave the rest at home......* *Because if she is walking the child might be able to walk down and you cannot carry the child as you have another one that you are backing and so you would not be able to do it." FGD7 (Mothers defaulted)* *R5: "I cannot bring all of them to the programme because I cannot control their movement." FGD3 (Mothers never defaulted)*
Negative rumours	*R: "What should be done is; you know some of them when they come, they are not treated well and they refuse to collect their child and they collect another, and so she will go away hurt and she will go and not come back, and when she goes back, she will tell others that they have stopped giving, so you see there is a problem there (side talks), a woman will come and her child will not be taken and when others come and are given the milk, they won't take it home, they will sell it and you see that is why when health workers hear, they are not happy." (IDI_Father of non-defaulter Jigawa)*

D.8 Theme: Reason for defaulting from the CMAM programme

Sub-theme	Quotes
Child has recovered	*R: you know some people may go to the hospital, then after being given drugs they start feeling better and They now start having the feeling that they are now well and back out Of the treatment, that is one of the things that cause it. (IDI_Father of default; Zamfara).”* *R3: Lack of understanding (Ignorance). For the person who understands the program you have a sick child and from nowhere God has blessed you (with the program) and your children are getting strong and healthy, what will stop you from coming. FGD7 (mothers defaulted)*
Child remains ill	*R: Well, it is our district head who announced the programme and my wife went there every Wednesday but I have to stop her from going there because I have not seen any child who had been healed of the disease. I feel my wife was just using the programme as an opportunity to go about, that was why I had to stop her, because you know women can be so unpredictable at times. (IDI_Father of default; Zamfara).”*
Child’s death	*R: Formally, in our household, the children die, we tell them but they will say if it is death, it is God that brought it, and then the child dies and they don’t go….IDI43 (mothers defaulted)*
Child will not eat RUTF	*R4: “Start to take it. So I kept on coming and slowly he started taking it even though he was vomiting and so on and the following week I also came and collected another dose for him and I kept on giving it to him. I collected it twice and on the third one the spots (rashes) in his mouth. He stopped taking the malnutrition paste completely and (mentions name of person) told me to keep giving him the medicine until the spots were gone and that God willing he will take it (Paste). So I gave him the medicine for the spots for a while and they died down a bit but after a while they came back. This is the reason until now, look at him mouth the spots are still there, which is why I stopped coming. Which is why I stopped coming, but when the spots died down a bit, I decided to come back to the hospital to collect the malnutrition paste so that I can continue to give it to him and to see if God willing he will continue to take it....” FGD8 (mothers defaulted)* *R: Well the reason is, why she stopped going up and down is; we tried to make the child eat and he refuses to eat, we tried to force him but the child locks his mouth, sometimes we hold his mouth, but he still locks his mouth, we have tried but he refuses. (IDI_Father of default; Jigawa).”*
Side effects	*R: Yes, but we are already told its possible reaction at the onset which may include stooling within three days and even vomiting. This reaction discourages them from continuing with the programme. Unlike myself I force my child to accept this meal until he was left with no option, these parent won’t understand that the stooling and vomiting sometimes is a away for this sickness to get out of the baby’s body to relief them, but this child I am carrying now did not pass such stool with this meal” FGD1 (Mothers never defaulted)*
Mothers attitude / laziness / ignorance	*R2: “Some say they get tired of coming every week.” FGD6 (Mothers defaulted)* *R2: Laziness also stops them from coming. It is laziness and I also think it is the fault of the husbands.” FGD4 (mothers never defaulted)*

Mother has other commitments	*R1: My husband made me come, I told him that I was going to come back even though the child is healthier. We came back after Sallah (Eid el fitr) and we did not get any and so we came back again but it has finished and I did not get a chance to come this week as we had a wedding ceremony. The wedding ceremony distracted me which is why I did not come. I came twice to no avail and on the third week the wedding ceremony stopped me from coming. (Mentions name of person) told me that if I was going to default then there is no point of me coming in the first place." IDI44 (mothers defaulted)* *R: You see during rainy season, some people attend to their farm work ..." IDI13 (Health manager)*
Mother's health / death / child birth	*R: I am having toothache for over a month now, I can't even cook, and if I had someone, he would bring me, I am the only one at home. IDI IDI43 (mothers defaulted)* *R4: I put to bed that was the reason I stopped bringing him." FGD8 (mothers defaulted)*
Distrust	*R: I told you this earlier, I don't know anything about this Tamowa (malnutrition) programme. I don't support the programme. When she left home the day of that programme she would not come back home on time. So I feel was not just the programme she attended. R: I don't know, she brought the plum peanuts home the other day it was looking like salt and I don't want anything that will reduce my child fertility in future. (IDI_Father of default; Zamfara)."*
Husband's permission	*R: and sometimes they may desire to come but the problem could be lack of permission to attend. (IDI_Father of non-defaulter Jigawa)* *R3: It depends on the type of man, if they say anything negative then it means they are not grateful. We don't want anything from them but, we thank God there are some amongst them that bring their children by themselves because of the joy. The situation has been eased so there shouldn't be any problem. They don't have the money to buy the medicine but thank God as the medicine is free so you won't go back and hustle him for money." FGD7 (mothers defaulted)* *R1: Our husbands, they are the ones that allow us to come... If they don't agree we can't come." FGD7 (mothers defaulted) If they don't agree we can't come." FGD7 (mothers defaulted)*
Transport, distance, costs, time, security & availability	*R: Yes, yes, if I don't have money. Means of transport, you see, if you do not have, and the road is not good. You see coming to collect may result in more problems, is it not true? (IDI_Father of default; Zamfara)."* *R: Yes she asked me of 100 naira or 250 naira most times if she is going for the programme and I didn't have money to give her, she would keep on disturbing me and I always get tired of her excessive asking all the time. For me to give her that money is better I buy food for them at home. . (IDI_Father of default; Zamfara)."* *R: Well, it is difficult to find those that don't reach the end, but if there is, some have challenges, some women come from the bush and When they go back to their family house is probably very far, so when we follow them, we find out that they have gone to another OPT, that is it, but some others come to tell us that they are going to another town or this child was being nursed and it is time for his parents to pick him up and so we transfer to another OTP or where we feel is nearest to the house which that child will go back, when we do this, they will have rest of mind and we too our minds will be settled so we cannot call them defaulters because we have changed their location, it will only reflect as transfer." IDI13 (Health manager)*

	R: "...Also spend more than a thousand naira to come here so any day that they have money for transport, they do not come as a result increases the number of defaulters." IDI13 (Health manager) *R: It is the problems I told you, when you she her not coming here it the problems of money to come. If you do not have a vehicle, you know the roads how the place is far, how many hours, how many kilometres, if you do not have a vehicle and no transport money, what would you do? Women are being attacked on these roads or robbed, you see, it is a problem. Some do not want the money but to rape them (claps). You see there are problems on these roads, you must find a motorcyclist, and you must take her there. (IDI_Father of default; Zamfara)."*
Stock outs	*R: In the whole hospital? Well the challenges we have is shortage of staff, and sometimes inadequate working materials. From time to time we tend to have shortage of working materials while clients come from different places and go back as a result of this." IDI18 (Frontline health worker)* *R: That [stock outs] has a really negative effect, because anyone who comes and doesn't get, next week, he doesn't get, when you look at it from the poor man's angle, someone lacks six hundred naira and any day he loses, he spends money on transportation apart from feeding, and then leaving what he has to do at home, that is one of the things that stops people from coming, but if the government or this organization in collaboration with the government will continue to bring it, that too will go away, and will stop. (IDI_Father of non-defaulter Jigawa)*
Environmental factors	*R: You see during rainy season... and also we have flood which as a result make difficult for people to come here...." IDI13 (Health manager)*
Long waiting	*R: Ah, well the main reason why some don't stay to the end of their treatment is because of the number of people that attend this programme."* IDI10 (Health manager)
Strikes	*R: I didn't stop coming at that time, since we went to the big hospital and spent Two weeks there, after two weeks there they now went on strike, so for that I now thought the strike was all over so I didn't tell my wife to come Again, after some time I now heard that there wasn't strike any More I then told her to come after which she was now listed among the defaulters . (IDI_Father of default; Zamfara)*
Facilities	*R2: "When we came there was no shade, so we had to stay in the sun because of that she got a fever and we did not get it (paste), when we got back she had a fever throughout...." FGD6 (mothers defaulted)*
Negative rumours / health workers refuse them	*R4: "... (mentions name of person) told me that there is a boy that hawks stuff that told him that he heard some people did not come to the program for 3 weeks and when they went they were told that they will not be attended to and so he told me even if I come they will not give me the malnutrition paste since I have spent more than 3 weeks without come. I said I will come and explain to them since it was not intentional and it was because of the condition he was in and so when I came here (mentions name of person) told me that there was going to be an interview for people that started coming and then later on stopped." FGD8 (mothers defaulted)* *R1: "It is a good program and it helps our children a lot. When I first brought my daughter she was sick she was all, but after I came and collected the malnutrition pack she got better. I have been coming here for 4 weeks to collect the malnutrition pack. I travelled and missed out on two weeks without coming to collect the pack*

	and when I came back the health workers said because I have missed out on two weeks without telling them beforehand that there was nothing that they can do to help me and so they withdrew me." FGD7 (mothers defaulted) *R2: "... and when I last went back they said that they have lost my card.: FGD6 (mothers defaulted)*

D.9 Theme: Support and motivation for attendance

Sub-theme	Quotes
Husbands support / permissions	*R3: It depends on the type of man, if they say anything negative then it means they are not grateful. We don't want anything from them but, we thank God there are some amongst them that bring their children by themselves because of the joy. The situation has been eased so there shouldn't be any problem. They don't have the money to buy the medicine but thank God as the medicine is free so you won't go back and hustle him for money." FGD7 (mothers defaulted)* *R: Me, the support I will give is, I will continue advising other people after me. And also my family and those that will listen, I will inform them about the importance of this programme so that they too can come out and benefit from this thing being given. (IDI_Father of default; Zamfara)."*
Other family members	*R1: "My parents (give permission to come)" FGD7 (mothers defaulted)* *R: Support, like when going. When she is going and I do not have money she can go to them [grandmothers, grandfathers, relatives] and ask for help to take this child and come back. (IDI_Father of default; Zamfara)."*
CV/HW	*R: The way to draw their attention is one to two; those health committees of all the points where this is done should meet with hospital health workers and have a talk with the community members to educate them on the use of it, if this is done at the community leaders house and other places where people gather, people will be enlightened on anything that was not clear to them. (IDI_Father of non-default; Jigawa)."*
Community leaders	*R: like this one (child talking in background) we can help. Because the way we follow, even if there is nothing, we meet with our community every week to discuss our everyday problems. Now during this meeting, we talk of the need to sensitize mothers the need for this and that, so that people can cooperate. We definitely give that kind of support. (IDI_Father of non-default; Zamfara)."*
God	*R: I give my support through prayers. When I pray, I pray for them. R: I pray that God should give them health and support them. (IDI_Father of default; Zamfara)."*

D.10 Theme: Challenges

Sub-theme	Quotes
Stock outs	*R5: Yes there is as we do not live nearby and we walk the whole way. Sometimes we will come and wait until 12 noon and if we are not lucky they will say it is finished and that we should go home. So you see you have suffered and you have left your work at home. Sometimes you come and wait all day and you will not get it, they will tell you that it has finished and you have a long distance to cover." FGD6 (Mothers who Defaulted)* *R "One problem encountered here is the insufficiency of medication. There are times people come here from far distance and stay on the queue for a very long time only for the drugs to be exhausted before it gets to their turn to collect. They should help us look into this because it courses a lot of hardship especially for people who turned from long distances. Sufficient drugs should be provided for the people" FGD18 (Male Community Volunteers)* *R4: "Another problem is when women gather in their numbers and there is no stock of what to give them? ……………..Yes, Tamuwa and drugs. Sometimes a woman transport ₦500, ₦1000 to come here and we can't meet her needs, when this happen we are not happy as staff working on this program." FGD17 (Male Community Volunteers)* *R4: "Yes sometimes the materials are in short supply, there should be pens and the weighing equipment at all times, they should have a constant supply of all the things that we need, we shouldn't be getting shortages. So that when we are going to work, everything is available." FGD19 (Male Community Volunteers)* *R: In the whole hospital? Well the challenges we have is shortage of staff, and sometimes inadequate working materials. From time to time we tend to have shortage of working materials while clients come from different places and go back as a result of this." IDI18 (Frontline Health Worker)* *R: Honestly the programme is running well, save the irregular supply in meals (RUTF) that we experience sometimes. When people come from long distances, and are not able to get tablets they become unhappy and this can get them discouraged, as they will begin to doubt the availability of the drugs given their experience from their last visit and the cost of transporting themselves to come down to the venue." IDI19 (Frontline Health Worker)* *R5: Yes there is as we do not live nearby and we walk the whole way. Sometimes we will come and wait until 12 noon and if we are not lucky they will say it is finished and that we should go home. So you see you have suffered and you have left your work at home. Sometimes you come and wait all day and you will not get it, they will tell you that it has finished and you have a long distance to cover." FGD6 (Mothers who Defaulted)* *R2: "addition to this story, because during that week like he shared when we had this problem, there were women who came from (mentions LGA), they came on a Tuesday and when they heard there was milk here, they transferred them here, so you see at first if there wasn't this problem of scarcity they wouldn't have come here because we are closer to (mentions name of LGA) so that is what we want, that they bring this milk in full supply every week so all these problems can be avoided, because what we don't want is if a woman goes and doesn't get, she feels offended and whatever way you try to explain to her, she will not come, but now, the milk is available because people from all over, even Niger come and now the Fulani's are here and there is short of food supply, and the women are most affected. That is why we want more supply because if there is none, we will go back. There are Fulani's who come all the way from (mentions name of town) and they are coming*

	and if they come and there is none, they will say it is not genuine. And so we want support and enough milk." FGD21 (Male Community Volunteers)
Inadequate facilities	R4: "The challenges that we face is that we don't have enough mats people do sit in bare ground, no cups and buckets." FGD16 (Female Community Volunteers) R: we have problems with storage, for example like where we keep the items, we have rats eating the milk, not sometimes. Rats come attack the milk………. We have used poison over and over again, and we don't have a standard office where we can keep our things in the community." IDI12 (Health Manager)
Inadequate staff / staff taken from other facilities	R: Just as I said earlier, we must be here every Wednesday to attend to the people, and if you do not come it is assumed you are on duty. So every Wednesday you have to be absent from your hospital. Some of us are only two in our hospital while some people are the only ones in their own hospitals yet they have to leave for the programme." IDI23 (Frontline Health Worker) R: Short "pause" ah, ah, hmmm, the hospital lack qualified and trained staff who are involved in the malnutrition programme (Tamowa) in the hospital. Another problem is the distance which people have to walk or cover to get here. There are also problems of lack of incentives and motivation to the Community Volunteers (CV)." IDI10 (Health Manager) R: Well such challenges exist. Staffs are not enough, and those that have been trained before are still the ones on ground as new ones have not been trained." IDI18 (Frontline Health Worker) R: some find there are no staff in the hospital. Like those to train those that will work. Sincerely, there is a problem. And then our Cvs should be more active isn't it? Because when we see that a child was absent once, we will send them to follow up. You see if that isn't there, there is a problem. IDI16 (Health Manager)
High staff turnover (deployment)	R: Well for now we are four health workers that implement/run this programme, and the reason is that we are the only ones that have been trained on it. We are also faced with transfer issues as some staff are been transferred after been trained." IDI18 (Frontline Health Worker)
Co-ordinating crowds of beneficiaries	R3: "We always have a problem coordinating them and we always tell them they should be patient and everyone will get. They start to fight and say some people are favoured. When there is a fight our supervisor comes out to say they should attend to those behind first. After 2 weeks of doing that, that they get more organized. That the only problem we have." FGD13 (Female Community Volunteers)
Waiting times	R1: No challenges except for the waiting that you have to do before you get it. Even if you were going to buy it you will still have to wait, when you go to the hospital you have to follow the queue. You have to wait in line until you are tired before your turn comes, that's all. IDI44 (Mothers who Defaulted) R2: The only challenge is that if you dare come late you will stand for a long period of time before it gets to your turn. That is the only challenge." FGD5 (Mothers Never Defaulted) R2: "Salam, the challenges that we face for this malnutrition is that when the women come, sometimes they reach 3-4pm so we have to gently convince them to wait a little longer that it will be their turn soon, so that it wouldn't be a waste of time on their side to come and wait a while day and leave without collecting the pack. So trying to convince them to stay is one of our major challenges and secondly some people, like I said earlier think that we are getting money for what we are doing but that's not why we are here, we are here for the progress of our community that come and collect these packs." FGD24 (Male Community Volunteers)

	R4: For example, no matter how late we are, we will get the malnutrition paste because there is normally a large crowd. Some people come here early in the morning (6am) if they want to collect it early so that they can go home and do some other work." FGD6 (Mothers who Defaulted)
Beneficiary disinterest/ disbelief/ reluctance/ noncompliance/ disobedience	*R4: "Hmmm… you know it is not easy dealing with people especially women. Some women will not take us seriously when you are educating them about the danger of Tamowa (Malnutrition) on children and also the importance of exclusive breast feeding and the need to be clean at all times."* *R5: "The challenge is getting these women to listen to you…………….."* *R9: "Another challenge is to get these women to believe in us and the programme itself." FGD10 (Female Community volunteers)* *R4: "We usually have problems with the parents in the area of adherence to prescription……." FGD17 (Male Community Volunteers)* *R2: "What discourages us about the program is that upon all the contribution that we give to make sure that women bring their children, you will find out that some of them act as if they don't care about the program. You will find out that some have started coming and later on they will stop coming until we go and convince them to come back again. They act like it is someone that is going to benefit from it meanwhile they are the once that will benefit the most." FGD24 (Male Community Volunteers)* *R: Well given the problems of distance and lack of inadequate information as to the running of the programme, some women actually turn up on non-programme days. When this happens, we appeal to them that programme days are usually Thursdays, even though we go ahead to take the children's measurement to determine if they fit into the program or not. If they do we reschedule them for Thursday and those who do not need to come any longer. This is to ensure people do not come from long distances twice only to discover their children are not eligible."IDI11 (Health Manager)* *R: the problem with them is one, it is not more than, the people themselves misbehave sometimes, they don't do what is expected of them on this program, they don't obey us on this program, sometimes they do what they want, most times you see someone will bring his person and insist he has to be attended to." IDI20 (Frontline Health Worker)* *R: yes the lapses are, firstly you know some people are ignorant that when they are gathered And given cards some mothers show up and say their cards are Missing and this makes It difficult to know what was given to the child before and we do find it difficult To find the file because the file number and name is inside the lost card, Secondly there is poor handling That when given instructions that this is the appetite of the child and told that the child's Hands and mouth should be properly washed you now find out that when they get home they Don't adhere to the medical advice Again those are the lapses but notwithstanding we are seeing to how we can solve it." IDI14 (Health Manager)* *R: Most of our challenges are with the women, because some don't follow instructions, and you discover that a child is affected and the mother will not properly give the milk to the child without missing a day. Most of these cases are difficult for us health officials. Some women start the programme and stop half way, that is some start giving their children this milk and they will not complete it and after some days the child goes back to the way he was before the treatment. Some come purposely to collect with the impression that it is Government owned." IDI23 (Frontline Health Worker)*

	R: It is a good thing for the designers/planners of this programme to monitor it from time to time, and this I will say by the grace of God is been done, unless that, sometimes those that monitor it go and get defaulters and give them cards to come back, and when we screen them and measure their MUAC (Mid-Upper Arm Circumference) then we find out that they are not even supposed to come back. This bringing them back congests our work as even since new comers are too many for us while defaulters are brought back. This imposes challenges to us." IDI18 (Frontline Health Worker) *R: The challenges we face are one or two, which happens to be because of the benefits of the food that we give children so if a mother brings her child and is taken for like six weeks or ten and we tell the mother your child is cured and is discharged, because of the food that she gives him and he is healed with ease she now gets worried when discharged we have to call her and encourage her that she needs to thank God because she brought her child ill but he was given food and he is now cured she only needs to thank God that her child is cured, to some is not the CV that send them they just heard that they are giving medication in so place milk for hunger and they bring their children on his own and come to the clinic and when we test the child and find out the child is not malnourished and doesn't need the milk the mother will get annoyed but we will have to call and calm her down and tell her to be grateful to God her child is not ill or malnourished because it is a problem since you gave your child breast milk and good food that builds the body he is not malnourished you should thank God from there even if she was disturbed and annoyed she will ease up instead of her just leaving without an explanation that will calm her down." IDI22 (Frontline Health Worker)*
Ridicule/ lack of support from some community members	*R1: "It's just that some women thank us for what we are doing and some will insult us."* *R1: "Some people are going around saying that we are wasting our time"* *R2: "If you tell some about it, they won't even listen to you, they might even insult you, they say things like; we have nothing better to do than to dress up and go around houses. We go back home after afternoon prayers." FGD11 (Female Community Volunteers)* *P5: "They see us as fools, their children are all well, that is the foolishness, and they say we are all fools, we go house to house, loitering about…." FGD13 (Female Community Volunteers)* *R8: "Yes, you see, even, even on my way to this place some people indirectly scored me all in the bid to discourage us from doing this good work. But we have made up our minds never to stop or relent in our efforts." FGD18 (Male Community Volunteers)* *R5: "One problem we have is that when we go to people to sensitize them about this programme, they assume that we are people working fulltime for the government. They see as if we are on salaries whereas we are just volunteers and are not on government payroll per se. This misconception constitutes a big challenge for us. " FGD18 (Male Community Volunteers)*
Distrust of programme / believe treatment inadequate	*P6: "…….here in town, people understand the work and are happy with it, but the villages in some places are yet to understand…………………" FGD23 (Male Community Volunteers)* *R: "Like any job there are challenges, in ours is when we go to some houses we do awareness and show them but they don't accept we insist on the need and benefits but they still will not accept." IDI42 (Male Community Volunteers)*

	R2: At times, if a child is admitted in the hospital because of malnutrition, the officials don't wait for the child to fully recover before discharging the child. If that issue can be addressed we will be very happy with the sponsors of the programme." FGD3 (Mothers Never Defaulted)
Corruption	*R1: "Yah, that is all different our main problem is that the people that would come and collect here and then go to another place to collect again."………… R all: "They are going to sell it."* *R5: "They don't give it to the children. Some of them have turned it into a business." FGD 12 (Female Community Volunteers)* *R6: "within us we have no problem. Even the women we sensitize, we warn them not to sell the milk at five hundred. So they should give their child" FGD13 (Female Community Volunteers)*
Culturally inappropriate tasks	*R6: "There is a program that they taught us to do amongst us men that we found a bit difficult. There is a tape that they give to us to measure the children, they said even if we are going to go to the farm we should have it on us at all times so that if we see a woman with a child that's sick we should stop her and measure the child and advise her to come to the hospital. This is a bit difficult for us because you don't know the woman, you don't know where she is from and you just stop her and tell her that you want to measure her child, she might not take it lightly and might find it odd which is why we find that part a bit difficult. But if she was to come here to the hospital then we can confidently do it…. Like she is not your wife and you just meet her on the road and tell her you want to measure her child, it seems a bit odd but if she came here or you go to their home then you can do it." FGD24 (Male Community Volunteers)*
Locating defaulters	*R1: "Secondly, we were trained on this project to follow up those children that default on their appointments. Looking at the cards of this patients you find out they are from Gwaran (name of village) in the interior, you see Goji (name of village), and from neighbouring Bauchi state you find Ningi (name of a village). It really becomes a burden and a big work to locate such children. This really is a big challenge." FGD17 (Male Community Volunteers)*
Transportation	*R6: "We don't go to some places of distance of 35km because we don't have mobility."* *R4: "Another challenge is lack of mobility." FGD22 (Male Community Volunteers)* *R4: "Ok, we were trained to go from house to house to get information on women with children from birth – 6 months. You see this is quite a big challenge. As volunteers in the hospital we lack mobility, and so requesting us to go to houses in the community is really challenging." FGD17 (Male Community Volunteers)* *R4: "Like they explained, the explanation that I am going to do is about the challenges that we ourselves face, this challenges is transportation. Sometimes we are coming from far and sometimes on the day of the distribution even though one might want to come on time but because he might not have a vehicle to bring him here then there will be a delay. That's all" FGD24 (Male Community Volunteers)* *R: Yes, on our part the transportation is a problem because they too want to go but the problem is the transport to go there, but they still try to follow up and know what is happening." IDI12 (Health Manager)*
Security	*R3: "There is a village of about 27-30km where armed robbers hide for robbery. As a result of this we are always afraid to go there." FGD22 (Male Community Volunteers)*

Workload	*R5: "The problems are that when you come here at about 6:00am, you will meet a lot of people who would have come from Gwaran or a village in Bauchi and some even spend the night. Having to work from that time till about 7:00pm with only water break is really a challenge. Sometimes it could even get to 8:00pm when the program started you have 80, 70, 60 people and about upwards of three hundred people coming for the first time. It is our responsibility to first check them before recommending them to the doctors where there is a need. These indeed are our challenges" FGD17 (Male Community Volunteers)* *R: Well just as I have said, the challenges is the wide coverage of people that attend the programme as we are sometimes faced with overcrowdings or congestions and we have little to give them. Example, the plumpy nuts does not get to or reach all of them, and you will see that some people come all the way from Bauchi State which is a neighbouring State and all we can do is to beg them to go back." IDI18 (Frontline Health Worker)* *R: Well just as I have said, the nature of this work is the fulfilment/joy that comes with it as people benefit from it and we also endure to do the work like that, because sometimes we work till night. We work from 8am until late hours of the night where we have to on or make use of the lantern." IDI18 (Frontline Health Worker)* *R: In this work, this work is really challenging, you see about a hundred-plus patients and then you have to sort them according to defaulters, absentees and then separate those that are recovered, after that, you enter it into a register, after that you take them, In fact the register is two, then those for admission you identify them and fill in those that are defaulters. There are some small forms that you will fill out separately. You do the work throughout the day, the work is challenging, after that filling of the form, you sit down and continue. The work is tedious and sometimes our colleagues sympathize with us and tell us that we don't do any other work except this, and it is charity work to our people." IDI20 (Frontline Health Worker)* *R: What takes much time is we stop the mother care these mothers that bring children here to be given this food before they are given milk every week we keep them for about ten to fifteen minutes to give them this milk and check how a child is and how the mothers feed the children whether the child feeds or not. We know which child feeds and which doesn't those that don't eat we find out what is stopping the child from feeding from the food we give them and those that feed before you will blink the child will finish one and even struggling to get another from there we have delays sometime we are here up to 5pm doing this programme." IDI22 (Frontline Health Worker)*
Disruption of personal life	*R3: "they are basically two (2): skipping prayer (Sallah) and meal times. Sometimes, emergencies come up and you are unable to do these things. Again leaving the home for this long period of time is also a challenge." FGD17 (Male Community Volunteers)* *R3: "Salam, I do have some challenges when the situation like this comes up because I want might want to go and do the volunteering work but at the same time I might get work that I will get some money from. I leave the work that I will get paid from and I come and do the malnutrition program, so you see there is a problem because I haven't gotten the money to buy my children some FURA (millet food) but rather I come here to work, but it is God's work that I am doing and when I go back home they will ask me for money to buy food and I will tell them I went for a volunteering job (charity). So I have a lot of problems with this." FGD20 (Male Community Volunteers)* *R5: "Problems of children, like marriage, or your child gives birth, or naming ceremony or some illness. These pose a challenge to us. And then –" FGD15 (Female Community Volunteers)*

CV's ill	*R1: "If not illness there is no other challenge because I do not do any work but this is our lives. Illness is above any other thing (respondents agree)."* *R7: "(Laughs) that is it, true. There is nothing challenging me more than illness because even the day before yesterday I had to call the Mallam and tell him I am here lying ill, true." FGD15 (Female Community Volunteers)*
For CVs/HWs - inadequate material incentives and delays in receiving them	*R1: "We are not being encouraged as such. We only get a thousand naira monthly and there are times we stay up to three months before getting it. We only hope such assistance will come with time."* *R4: "Sincerely, it is not easy for us to live our occupation and homes to volunteer on a program. This sometimes is with hunger. This indeed is challenging." FGD9 (Female Community volunteers)* *R4: "…So you see those are some of the challenges we face, so people want to join, but they see that they are not sharing anything, and every month that ten thousand that is shared gets to only about ten people every month, and we are twenty five now, so you see there are some that have to wait up till two months before they get it." FGD23 (Male Community Volunteers)* *R: Well, we don't face any problems, truly, the only problem is just little issues that involve lack of allowance on the job, we are doing it like volunteering, those are the little problems facing us not just us but all our colleagues." IDI21 (Frontline Health Worker)* *R: The difficulties faced in the funding of the program is that the volunteers do not do the work for the sake of being paid but even at that they should be encourage because they do spend their money on transport so for that they should be helped. IDI14 (Health Manager)*
CVs skills	*R8: "When it comes to weighing, you know it is not all of us women that are educated and so it is not all of us that can read the numbers on the scale, so to be honest some of us struggle with it, which is why a lot of us don't know how to use it." Rall: "That's true." FGD 12 (Female Community Volunteers)* *P4: "Like what we weren't taught; like going into the villages to mobilize people………. how to start………….. it is important because entering our community extends to, people coming from (mentions state), can come to this place to collect the milk" P3: "And teach us when we face challenges how to solve them, but we weren't taught on that, but if we have any problem, we contribute money amongst ourselves, it may be for some who are sick or within ourselves" FGD23 (Male Community Volunteers)* *R1: "Salam. The kind of work that we do without being trained is, because for example if you take the tape to your farm and on your way you stop someone, then to be honest I don't but I advice the person to come to the hospital or to follow the person home if the person is comfortable with that and you can advise the husband to tell his wife to come to the hospital with her child to get checked up. This part we were not taught or told to do, we are the ones that are doing it." FGD24 (Male Community Volunteers)* *R1: "Taking measurement for the girl child and those things that make up for her basic hygiene………. They taught us nail cutting, hand washing, but not basic education of hygiene that could brighten the appearance and countenance of a girl." FGD17 (Male Community Volunteers)*

Supervision / support inadequate	*R: there is support in all of them, it's just that the work itself, we have to do it ourselves. They support us in every area, we get support averagely but they can do more………….. In the area of screening, the new patients- new admission, honestly we don't get enough support, and also follow up, those that weigh, they too, the work is much for us, we don't get much support from there." IDI20 (Frontline Health Worker)* *R: Truly, mostly, there isn't much support in all, there isn't, even the CVs, they are just doing it for the sake of God, and they have been taken as volunteers." IDI21 (Frontline Health Worker)* *P6: "No, when you look round at the environment you are in, it is we the CVs that contributed money to buy these trees and all that was used to tie it up and we built a toilet, and bought some plastic containers and other equipment's, it was within us the CVs – both men and women, we contributed money to do that, and we felt it was very important because we looked at it that there was nowhere else to go to, to seek for help, that is why we did it ourselves." FGD23 (Male Community Volunteers)* *R3: "Some will come to work and will not see any workers, he will come for two days and he will not meet anybody, so he will feel like this is not serious and he will quit." …………………….. Rall: It does [happen]" …………….. R3: "Not on the volunteers but from the workers." FGD19 (Male Community Volunteers)*
Non-institutionalization of CVs, leading to limited influence within the system	*R4: "We also need another thing, we have been working here for a while but there is nothing to identify us as workers here. We should come together; the 40 of us and our leaders and we should all be registered. This is useful in case someday some people come the register can be used as reference to know who and where someone worked at a certain year."* *R6: "The major problem that we are facing, the whole of the CVs, is that there is nothing that we are in charge of, nothing that we have that if it goes missing it will be from us and if it is fixed, it will also be from us. Like some equipment, when they brought the benches they said it was for the malnutrition program they didn't say that it was for us the CVs and that we should take care of it and where do you want to keep it. We are not in charge of any equipment they only bring them out and give it to us on the day we are going to work."* *R7: "No one among the CVs can go and bring the milk that he is talking about. The person that brings it is not a member of the CVs. We don't know what his job is." FGD19 (Male Community Volunteers)*
Concerns that CVs are being treated unfairly	*R2: "(Greetings). Honestly, what makes people not to continue is this, for example, when you see those supervising us come in driving on their Hilux and big cars, the people usually wonder amongst themselves, if these people are also truly volunteering on this program? (Men laughed) we on the other hand are working under difficult conditions. This explains why volunteers abandon the program. Volunteers are told to make sacrifice and work for the sake of God while the supervisors work to be paid. But you see us here we had never defaulted in coming here." FGD17 (Male Community Volunteers)*

D.11 Theme: Recommendations

Sub-theme	Quotes
Convincing defaulters to resume attending the programme	*R1: For us that stopped coming we should be convinced to start coming that is what we need from the program. They said that if we go for more than 3 weeks without attending they will stop giving us the paste but now we want to start coming." FGD7 (mothers defaulted)*
HWs to re-enrol women who default	*R5: You should help us talk to them as they said that because we have defaulted for three weeks they are not going to give it to us. You should help us join the program again so that we can collect the past." FGD8 (mothers defaulted)*
Reduce wait time	*R2: If you come they should give it to you immediately as sometimes we come before prayer time but if we are not lucky we will be here until after 12 noon. They will call people that didn't come and give them while we that came early are sitting down thirsty and hungry and sometimes we don't even have the money we go back like that. So this is not fair. FGD7 (mothers defaulted)*
Husbands to give permission and support	*R4: To be honest even though the man will be buy you all the nutritious food that you need he will still tell you to keep on going to collect the malnutrition paste until they discharge the child from the program." FGD8 (mothers defaulted)* *R3: He should give us pocket money and he should give us permission to go. So that if you go you can buy something for the child to eat. FGD9 (mothers defaulted)*
Continuous supply of commodities/Avoid stock outs	*R: What should be done continually I would say is that we are pleading with the organizers to leave or avoid the shortage of that drug, that is the only thing, that is what will help the husbands to allow their wives or any support they can give them to come. (IDI_Father of default; Jigawa)."*
No need to change anything	*R5: They should keep doing it, no need to change anything* *R4: No need to change anything." FGD4 (mothers never defaulted)*
Continuous education to those who do not bring their children.	*R1: They should be educated about it continuously until they start to agree with the program." FGD4 (mothers never defaulted)*
Not allowing defaulters back into the programmed	*R4: Whoever discharges herself should not be attended to if they come back." FGD3 (mothers never defaulted)*
Continuation of the programme	*R: Anything in your power and let the government keep reaching out to us on this beneficial programme of Tamowa because others will still come even if at presence we are not facing any health challenges, I pray God will strengthen you, the government for this services you are offering. It is possible tomorrow that one falls sick but if there a continuation of this there won't be any fear at all even if we are not facing any health challenges now." FGD1 (mothers never defaulted)*
Women empowerment.	*R3: We want government to assist us with money to start our own businesses to help our families and also feed our children well with good food and vitamins. FGD2 (mothers never defaulted)*

Material incentives including cash, refreshments on clinic days for CVs	*R2: "The changes we want is to increase or empower us by providing mobility and where necessary allowance. This would shut the mouth of our detractors who will always accuse and make jest of us of involving in a worthless venture. This will add some integrity and respect to our work.* *R1: "You see we don't have any other 'job doing' aside this one, so provision of meals especially lunch could really help improve on our working conditions." FGD17* *" FGD17 (Male Community volunteers)*
Better supervision and fairer compensation for CVs and HWs	*R2: "They should also take attendance of those of us who come to work and separate us from those who don't. When it is time for payment of allowance during the seminars, they should make us feel the impact of their supervision." FGD19 (female Community volunteers)* *R: The advice I would give is, for those that the burden is on their shoulders, they should apply more wisdom and be more patient, it is not that we are looking down on them, but they should supervise the OPDs more because when you don't regularly check something, it will spoil completely/ but regular supervision will help such that if there is misappropriation, you can easily detect and make corrections and if there are advices you can give, you see you can see it." IDI12 (Health Manager)*
Transportation for CVs	*R3: "Honestly, there is advice, just like my colleague said, distance is a major issue. If the program provides motor cycles for us we would be able to cover 5, 6, and 7 to 10 km journeys. This is a major issue, and as such any help that would come should relate to mobility for volunteers, for example with a motorcycle we would be able to go round the city of Bamaina. All the programs could be doing is to fuel these motorcycles at intervals and you will see that there will be no work that we would not be able to do as we will be motivated." FGD17 (female Community volunteers)*
More education for CVs	*R1: "What we are asking for, education is something that everyone wants……… Nobody rejects education, no matter how old you are you can educate some and you will also be educated. So whenever it comes we will be educated so even if I get stuck I will be educated." FGD11 (female Community volunteers)*
Better information/communication system	*R1: "Arrangements should be made for us to be able to contact the parents of those children ahead of time and tell them not to bother coming all the way here on the days the product will not be available. This is because some of them come from afar and spend a lot of time and money to get here only to find that the products are not available. They should provide us with handsets, recharge them and train us on how to use them to inform the people ahead of time." FGD9 (female Community volunteers)*
Rotation of volunteer duties among CVs	*R3: "You know we are about 40, and we used to go all at the same time, but then Ahmed said that 10 people should come for 3 weeks and then another 10 will come for 3 weeks and so on you see that is 4 weeks, that is a good change and nobody will be stressed." FGD12 (female Community volunteers)*
Recruit more HWs	*R: Well, even if they say that is how they will do it, except if they will add more staffs because we are few. If they ask us to do it every day, then they will have to increase the number of staffs, and if there are staffs, there is no problem, this is a program that can be done within a short time, and there is no problem." IDI20 (frontline health worker)*

Improve public perception of CVs	*R2: "We want the change that will make people understand why we are loyal to this job and hopefully the change will make them come back. They will come back if they notice the changes." FGD12 (female Community volunteers)*
Better planning and greater efficiency	*R5: "As community leaders the major change that we want is one, on the day they are going to give the malnutrition, when people come, work should start early so that we can finish on time and if anyone has something to do, then they can go. This is something that we can fix ourselves as community volunteers." FGD24 (male community volunteers)* *R7: "The changes that will make our job easier as community volunteers is to plan on how many people will come each week and to plan for that amount of people, I think if we do that our job will become easier." FGD24 (male community volunteers)*
Occupational assistance	*R2: "Yes, the organization should help us in our homes, and especially on our farms. We want to be able to pay people to help us on our farms especially for those days when we are here and can't go there. You see most of the challenges we encounter are more serious during the farming season, and since it is our major occupation, it is expected of us to pay attention to it. It is not like the rearing of animals which could be left in the hands of children or other members of the household. Farming requires our full attention for it to succeed." FGD17 (male Community volunteers)*
Routine review of training	*R6: "……………..They should also spare an hour every day it is taking place to further train us on the work that we are doing so as to enlighten us, it could like a group discussion so that you would know what you don't and you will be reminded about what you already know." FGD24 (male Community volunteers)*
Adequate work materials for CVs	*R3: "We want the government to provide with all the equipment we need to carry out this work so that we can be motivated to give our very best." FGD18 (male Community volunteers)*
Transportation for CVs	*R3: "Well, except motorbikes that you will say you will climb and go somewhere, if it is possible, they can do it, to give something to ride do that we can go and seek out there people. We are aware of all these places, there are those that are 10km away from here and we are finding it difficult reaching them, sometimes we meet them in the hospital……" FGD21 (male Community volunteers)*
More education/ employment for CVs	*R2: "the change we want is for us to be better educated so we can do our work well and even move to a bigger one." FGD17* *R5: "We need scholarship so that we can acquire more knowledge on health sector. Or make us permanent staff of this organization since all of us have the experience." FGD16 (male Community volunteers)*
Monthly review meetings and reassessments	*R6: "you know every month end, they call a meeting and give us a review on that work so that we can make progress and not have problems, so every month end, we do that, and where we can be more enlightened, to mobilize more people from the villages or within town and we get more insights from our leaders who help us to find ways we can get more people in the villages and within town and then those that have been discharged, we advise him on how he can continue to care for his child, and give him food." FGD21 (male Community volunteers)*

Education/advice/ meetings to sensitise, especially influential people like husbands or elders	*R: How to draw their attention is in one or two ways: These community health workers in places where there are health facilities like this should join hands with hospital staff there to hold meetings with the people to educate them on the programme. If this is done in the houses of ward heads and other places people gather, God willing, people will be free from everything holding them back. (IDI_Father of default; Jigawa)."*
Women's involvement, especially divorcees	*R: Well presently, we are trying in that area, we are looking for women because men are more in the volunteers and we prefer more women in it too, because it is a women affair and we want enlightened women who can educate their fellow women.... R: We are getting, because we are looking at divorcees, and those who are going around and showed no signs of settling down, we involve them because they can talk anywhere without feeling any fear on any issue, they can stand and sensitize their fellow women. (IDI_Father of non-defaulter Jigaawa)*
Incentives for women (soap)	*R: like for instance, bathing soap, if a woman will come every week to collect that milk and she is given soap to bath or wash her child's cloth, so that little gift will encourage her(IDI_Father of non-defaulter Zamfara)*
Provide transport	*R: Me, the advice I will give is this, if it is possible like the way this organization is taking responsibility for this programme, then it should take responsibility for transporting these people to come to this place to collect supplies. If it is possible this is what I see, there is nothing beyond government and this organization. If this is taken care of there will be nothing else except more prayers. (IDI_Father of default; Jigawa)."* *R: the advice I would give is; if given a chance, just as this organization has taken charge of providing this food, she should try to support by bringing those [transport] who cannot come for this program so that they can come and collect, if this is possible this is what I see, the government and this organization, there is nothing impossible for them to do, and if this is achieved then everything will be okay, just prayers. (IDI_Father of non-defaulter Jigaawa)*
Improve infrastructure -roads -Hospitals	*R: What is needed to solve this problem is for government to help since all these things are for her own people and for the improvement of their health. If government helps to provide roads and bridges for places that water/rivers cut off, if it helps with these then, God willing you will see everything in the land being supported by all the people. (IDI_Father of default; Jigawa)."* *R: The hospital should be widened, you need to see this place on the day that we give out the milk there is no space the women and children pack the place.* *IDI17 (health manager)*
Tolerance – don't send women away	*R: what is supposed to be is that, anyone that makes a mistake should be corrected And not to send them away… (IDI_Father of default; Zamfara).*
Prevent corruption	*R: it is all the same; those health workers too, there is something that can be done for them too so that they are not discouraged, you know, if someone is doing something, the devil can come in, it is work that gives you reward and you know that when you do it, you will be rewarded, but the devil can come into your heart and tell you that since you don't get anything, why don't you collect a little bribe and you see you can be discouraged even if the government is paying you on that job, but when you go back and they (the organizers) are taking care of you and giving you a little something, you see God can protect you from the work of the devil and you will move to another work, you know that there is something little you are getting on top of your*

	salary. So you see even the staffs will take care and hold to the work to continue. (IDI_Father of non-defaulter Zamfara)
Increasing the number of CMAM centres	*R: The way to improve this programme is to increase our staff because the work is too much here for us because of the presence of other patience from other communities, or malnutrition centres should be opened for them. Even if it is CVs, it doesn't have to be trained staff. IDI17 (health manager)*
-Using the mass media to inform people on how the programme works.	*R: there are many ways they can start with, because this work, there is much progress but there ought to be those who can mobilize the public, we have them but there is need for mobilization in this local government area so that the public will be more aware of what is happening, the reasons and its importance of it, up till now there are those who don't know what is happening even though there has been much progress." IDI20 (health manager)*

Annex E Sub-themes and illustrative quotes presented by themes specific to health system

Colour code:

Both States: Green

Jigawa: Blue

Zamfara: Red

Summary of the themes & sub-themes that are presented below with quotes

Themes	Sub-themes
Roles	1. Sensitize people about CMAM 2. Facilitate CMAM clinics and activities, including weighing children, medical consultation, giving RUTF and drugs. 3. Give nutrition and health education (both during CMAM clinics, and in community) 4. Explain proper use of RUTF 5. Visit communities and screen/ identify new SAM cases 6. Visit defaulters 7. Sometimes talk to men/fathers 8. Promote routine health services 9. Monitor growth of child over the course of treatment 10. Social mobilization 11. Follow-up to ensure that beneficiaries adhere to treatment 12. Encourage word-of-mouth promotion of CMAM 13. Contribute to community development in other ways apart from CMAM 14. Provide all kinds of support to CMAM beneficiaries 15. CVs play a very important and supportive role 16. Attending to CMAM cases and other cases *17.* Carrying out several duties 18. Health consultation and appropriate referral. 19. Complementary roles between HWs and CVs 20. Role of HM: coordination of activities
Nutrition Education	1. Given on CMAM clinic days 2. Not being done on CMAM clinic days 3. Done on CMAM clinic days: difficult to practice as foods are not available 4. Carried out during ANC 5. Advice given to women the need for making balanced diets for their children
Training	1. Opinions 2. Covers many issues, including nutrition/health education, screening for SAM, community mobilization, conduct of CMAM clinic activities, counselling about dietary modifications 3. Regular training and retraining being done 4. Training not regular 5. Lack of training for newly employed HWs 6. Trained on everything in the job 7. Training not carried out on everything 8. Training was conducted before the programme commenced 9. All staff have been trained 10. Carried out only by Save the Children
Motivation	1. Religious convictions 2. Increased knowledge about health/healthcare 3. Improving child health and saving lives 4. Desire to contribute to human/ community development 5. The material incentives received 6. Respect, gratitude, prayers of beneficiaries, and popularity with them 7. Sense of satisfaction/ control / it works 8. Social interaction it affords 9. Hope of future rewards from the government/ elsewhere 10. Family's encouragement 11. Expectation of their job 12. Peer support / satisfying working environment 13. Regular supply of drugs
Supervision	1. Encouraging 2. Provides guidance and support 3. Ensure programme is successful 4. Not regularly done in one LGA in which CVs also seem to resent it 5. Desired and welcomed 6. Recognize the importance of supervision 7. Supportive supervision carried out regularly 8. Different officials carry out supervision

Communication with mothers & fathers of CMAM beneficiaries	1. Need for timely information/ communication mechanism between community and health system 2. Education to address misperceptions about causes of illness 3. Poor communication about reasons for ineligibility 4. Need to provide information about need to adhere to treatment regime 5. Need for information about how to deal with feeding problems 6. Need to target husbands with education 7. Need to address reasons for distrust
Reporting	1. Monthly and or weekly reports are submitted 2. Reports written and sent via SMS / network coverage issue 3. Content of reports: number of people seen and milk distributed 4. Too many reports required at the end of the month
Products & Technology	1. Stock outs of RUTFs 2. Need for adequate facilities and materials for activities 3. Stock outs of drugs 4. Stock outs of other materials 5. Products provided by an organization
Human Resources	1. Need for more volunteers 2. Need for additional training not covered/ value basic education for volunteers 3. Assignment of specific tasks to each volunteer to ensure efficiency and effectiveness 4. Heavy workload for CVs 5. Scheduling of CV activities to reduce time-burden 6. Absenteeism of health workers at health facilities 7. Fairer compensation for active CVs 8. Employ CVs 9. Lack of qualified and trained HWs 10. HWs from other facilities leaving their primary posts unmanned on CMAM days. 11. Increase staff 12. Dedicated staff selected 13. HW continuity 14. Women CVs needed
Service Delivery	1. Large crowds, and long wait times for beneficiaries during CMAM clinics 2. CVs and HWs do not humiliate-accept with open hands 3. Need for more comfortable clinic environment 4. Some tasks culturally inappropriate 5. Need to ensure service provision begins early in the day 6. Request for transport provision 7. Improve infrastructure 8. Programme runs wells 9. Programme is invasive 10. Follow-up is appreciated by mothers of CMAM beneficiaries
Financing	1. Need for financial & material incentives (e.g. lunch on CMAM clinic days) for volunteers 2. End-users too poor to pay for services 3. No funds for the programme 4. Funds available from State and the emirate 5. Funds set aside 6. Financial help from an individual in the community 7. Lack of funds for transportation
Governance, Guideline, Policy	1. Need for mechanism for identifying active volunteers 2. Need to conduct activities aimed at improving public perception of CVs 3. Re-evaluate time-burden for CVs, and reduce time commitment required, possibly through a rotation of duties 4. Contributions of CVs are not institutionalized 5. Need to pre-estimate the expected number of people at CMAM clinic and plan accordingly 6. Guidelines are provided to work with

Integration	1. Polio officials enlighten community abut programme 2. Immunization given on CMAM days 3. Generally, well integrated with health programmes 4. Good referral system for other illnesses 5. Does not want integration because of the work load 6. Cannot be well combined – must leave other duties
Sustainability	1. Although, programme is highly welcomed people are too poor to pay out-of-pocket for RUTF 2. Active CVs express commitment 3. Free drugs provided by LGA 4. Help from community 5. Opinions 6. Covers many issues, including nutrition/health education, screening for SAM, community mobilization, conduct of CMAM clinic activities, counselling about dietary modifications 7. Regular training and retraining being done 8. Training not regular 9. Lack of training for newly employed HWs 10. Trained on everything in the job 11. Training not carried out on everything 12. Training was conducted before the programme commenced 13. All staff have been trained 14. Carried out only by Save the Children

E.1 Theme: Roles

Sub-theme	Quotes
Sensitize people about CMAM	*R5: "The other day, we gathered the women somewhere close to the market for sensitization. Last week we also spoke to them in the compound of the village head (Mai Ungwar)." FGD9 (Female Community Volunteers)* *R10: "Ok, we go from house to house in sensitizing women on the need and importance of breast feeding and also finding out what is wrong with our children health wise." FGD10 (Female Community Volunteers)* *R5: "We go about for sensitization." FGD14 (Female Community Volunteers)* *R: Because they are the ones chosen, and are in the committee, because they chose from those in the community, all that were chosen were from the committee, they were brought and their work is to sensitize people in the community that this is what is happening and honestly they are able to get people and bring children." IDI12 (Health Manager)* *R: We have it in different categories because we have men and women. The women use some privileges like occasions and other gatherings to sensitize and access. Malnourishment can be cause by disease, cough and diarrhoea. So if the women discover any of these things in the children to advise them to go to the hospital for checkups. "IDI-HM-ZanfaraGaladi*
Facilitate CMAM clinics and activities, including weighing children, medical consultation, giving RUTF and drugs.	*R3: "Sallam mu allaikum. We the committee members on tamowa are on duty in this place on Thursday. We put on our uniforms, check their height and help them move to the other side where they are given their medication. There are also some women whose responsibility is to fetch water, help them wash their hands thoroughly after they must have received their medication. That is the duty we perform here every Thursday……………. What we do after measuring their heights, we put each child in the scale to measure his weight and this will also be recorded in his card."* *R5: "Yes, there is. After the various measurements of the children have been taken, the children are then transferred to the doctors over there while we remain seated here. We will be required to give the children different number of packs-some eighteen, some twenty-one, others twenty-eight-we are the ones who give them number of packs we are so required to be given each child. " FGD18 (Male Community Volunteers)* *R1: "Thank you. We use to come out every Wednesday from our various houses; we are twenty eight women and two men in number. We also divide ourselves in groups, some are responsible for fetching water, some spray mats, and some take care of the chairs. What we do generally among the twenty eight women and two men as we come out is that each and every one of us knows where he or she is to man, some stay where hands are washed, some stay at the drinking water joint, some stay where milk is given out, some gives directive on how to use the milk, and some give orientation to new comers on what causes malnutrition." FGD16 (Female Community Volunteers)*
Give nutrition and health education (both during CMAM clinics, and in community)	*R3: "On some other days aside Wednesdays on which the product is distributed here, we seize the opportunity of gatherings such as naming ceremonies, weddings and the likes to sensitize the people on the benefits and importance of the tamowa products and programme to them and their families."* *R4: "We teach them about hygiene, pregnant women and what is expected of them like the type of food they should be eating, going for ante-natal clinics and maintenance of personal hygiene." FGD9 (Female Community Volunteers)*

	R2: "There is additional information (unclear male voice in the background). We tell every woman, in the name of God please observe personal hygiene, wash herself and wash their infants, bath them. Some children are defecating and fed at the same time. This can lead to diseases such as diarrhoea and vomiting which are related to tamowa. We sensitize women on cleaning their rooms thoroughly during heat and not to leave food outside. Even when food is kept inside the room it should be covered because germs enter it and you eat and you give your family and problems start affecting you and the home. We teach them these." FGD15 (Female Community Volunteers) *R2: "We enlighten people that we send to the hospital to the best of our knowledge."* *R3: "Salam, I am (mentions name). Apart from that we go around educating parents on how to wash the hands of their children, how to wash their hands and mouths and how to feed them in a clean manner. After they have been discharged we tell them not to play with the health of the children, and that they should keep given them nutritious foods." FGD20 (Male Community Volunteers)* *R1: "for example whenever there is an occasion like naming ceremony or wedding in the community, we usually meet with them and give them pieces of advice in the areas of hygiene, child birth, sanitation, post natal care, breast feeding etc. They are usually grateful to us." FGD17 (Male Community Volunteers)* *R: well, here, my view regarding this malnutrition exercise, firstly, we need to have more cases of this malnutrition disease because we enjoy the work because when we take them, first, second and up to three weeks, they get well and our CVs look for them in their villages and bring them, and we are happy and our desire is to continue with this and they keep finding them and we will keep looking after them and giving them this malnutrition milk and we give them health talks on how to take care of their families at home." IDI21 (Frontline Health Worker)*
Explain proper use of RUTF	*R3: "We wash their hands with water and we remind their parents that they shouldn't touch the milk (malnutrition pack) without cleaning their hands. So we tell them to wash their hands with soap and to also wash the hands of their children before feeding them. After they feed the child we tell them not to throw away the packs anyhow and they shouldn't give the other children who are healthy but they should concentrate it on the sick child until the child gets better." FGD 12 (Female Community Volunteers)* *R1: "There is addition. I want to talk about the dedication of women in this town. We do our work sincerely without any complain. About children brought here, they are separated, new ones here old ones there. I come and educate the new ones because we are given books, books on swelling and other issues affecting the children. I go and tell them that please we do to the best of our ability because of God. They should therefore accept everything they are told and take them seriously. They must not receive milk today and miss it tomorrow saying they do not have transport fare to come. Mothers should find every means to come here because when the child is ill it is the mothers that shoulders the burden not the fathers. We tell them that when they collect the milk they must not give it to their younger ones or their favourite children. They must give it to the intended child. Do not attempt to share with any woman having the same problem but only advise her to come here and be given her own. They accept this sensitization. So far so good, we praise God and trust He will repay us for our work. And you that come here to educate us may God repay you" FGD15 (Female Community Volunteers)*

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Visit communities and screen/ identify new SAM cases	*R8: "In Town, we go house to house; we go to parties and naming ceremonies to enlighten people about the kind of things that they should give their children so that they don't become malnourished and if we see a malnourished child, we carry a scale with us, we weight the child and if he falls within the red zone we tell the parents to bring the child to (mentions town) Hospital, if it doesn't fall under the red zone and stays in the yellow zone we advise the parents on the kind of food to feed the child with so that the child doesn't become malnourished and if the child falls within the green zone then the child is not malnourished."* *R3: "We go into nooks and crannies to parties, naming ceremonies and if we see sick children we advise them to take them to the hospital." FGD 12 (Female Community Volunteers)* *R3: "(Mentions name) what we do on every Wednesday which is our programme day is that after going to people houses to fish out those who have mal nutrition cases because every volunteer was given equipment to testing. In the hospital, we have two queues; one is for new comers while the other is for old timers. During collection of milk, their cards are being check with their registration, while their weight is determine with the help of a scale. These are some of the things we do on that day." FGD22 (Male Community Volunteers)*
Visit defaulters	*R3: "Yes and secondly I go around making sure that people who start coming keep coming and if not I find out why they don't come."* *R1: "I think the way everything is now is okay because now if a person brings their child and then they stop coming and you follow the person home and ask her why they stopped coming, this is also important because you don't know, maybe you offended her and that's why they stopped coming. Or maybe the child is not feeling well and is not drinking it, so you can also go and ask what the problem is so that you can find out why they stopped coming." FGD 12 (Female Community Volunteers)* *R1: "on the days we don't go to the hospital, we go from house to house. We look at the children and plead them to come to the hospital where they collect milk. We noticed that when they are given milk they stop coming. When we check their card we see that they have not been coming, we find them and ask them why they have not been coming for a week or two. We will find her and ask her why she stopped coming for the program that has benefitted her child. There is any reason like illness she will let us know and if after 3 or more weeks we don't see he, we will tell her the benefits to her child." FGD13 (Female Community Volunteers)* *R: Well, it is better now, unlike before at the time the program started, now you can identify the defaulters, and there aren't any now, especially as they now know the importance. But earlier when the program started, we used to have defaulters, but now it is better……… well, yes but honestly now, because of the nature of the work, because at the time we traced them and went right to their villages because the place is quite far, at the time we went, we were told that they were the type who usually travel during the harmattan, when they come first week, and second week, and we got two of them when we went to their villages, because I had to pay for motor bike of three hundred naira, they took me and brought me back, and they said they had travelled for the harmattan………. No, you cannot get them, and it is since that time we got relief of that now." IDI12 (Health Manager)*
Sometimes talk to men/fathers	*R1: "If you go to a person's home you have to see the husband then from there you can tell him in a nice tone for example that you have seen his child, it's like he is not feeling well, then he will probably ask what did I see that made me say that and I will tell him to take the child to the hospital to confirm the health of the child. So if they*

	take the child to see the doctor, he will determine if it is medicine he is going to give them or if it is malnutrition then they can come to the program on Monday." FGD11 (Female Community volunteers) *R7: "Yes we do, with husbands, fathers and even those that don't have children, we all meet up with them because if the woman doesn't agree but the husband does and knows the benefits he will make the wife do it. Which is why we meet up with them and we get their support. In most cases the men give us more support than the women. Because if the child is not feeling well it is the husband that will pay for the medical bill and so if this aid comes they welcome it." FGD 12 (Female Community Volunteers)* *R6: "well, we only sensitize them to allow their wives come for prenatal. If your wife child is sick, they should take the child to the hospital. May God give grant him health. If it is malnutrition, we will know, if on the other hand it is not malnutrition, we will tell him to take the child to the hospital. This hospital in Shinkafi. If you take him he will get better" FGD13 (Female Community volunteers)*
Promote routine health services	*R5: "Yes because each time there is any information like immunization, we don't hesitate to inform them of it." FGD14 (Female Community Volunteers)* *R1: "yes, we go into homes. (Sound of bikes at background). We tell the mothers that they should bring their children for milk so they can be better. After that we tell pregnant women to come for prenatal and the need for the prenatal checkups. We ask them if they go for checkups, if the say no we beg them to go for checkups…………" FGD13 (Female Community volunteers)* *R: This hospital has about seventeen (17) villages attached to it and each of these villages have field staff working hand in hand with this hospital. For example, when a woman comes from Boji (name of a village), she alone is capable of spreading news and information about hospital activities in Wurno that could have be done by say 10 – 15 people." IDI11 (Health Manager)*
Monitor growth of child over the course of treatment	*R4: "they sit on the mat and follow the queue until their names are called. When their names are called, they take their card, get in line and get on the scale. They weigh her. She and her child weight are recorded. We tell them to collect and check their card. We help them check their card and any child that looks like they have the sign of malnutrition on the body, we ask them the reason why the child's weight has dropped. She gives us an explanation and when she goes to collect milk, her name is called and she also explains why the child's weight has dropped even after the child has taken the milk. She explains the problem and if she explains and needs to take drugs, she will be given drugs. Often times if she returns and the child is weighed and is fine, then you see all is fine."*
Social mobilization	*R2: "we have men and women in the Community Volunteers and so every one of us has a part or section that he or she works with. You see as men we cannot just go into the homes of people, we just meet the household leader (husband) and gently convince him about what we are doing and the women that work with us can go into the homes comfortably, they will go to other women and educate them about the program and advise them to enlighten their husbands about the program, from this we get a lot of progress." FGD24 (Male Community Volunteers)* *P1: "We get the opportunity very much so, because they too, the parents are very supportive of our work. Anytime we go to houses to inform them, and we the men inform the men regarding this, and the women go into the house to inform. At the time we go, we don't stay long and when they say the importance of it, we didn't need to call them and this place was too small for them, and we have some go right in to sit down." FGD23 (Male Community Volunteers)*

	R: What I want you to understand is these CVs are from this community, from this catchment area they were taken, it is not as if they were taken from one settlement only, it is from different settlements, for every town they were taken and this catchment area of ours, they were taken, male and females. Male, when they sit in the mosque, they talk, and ceremonies. And the women too because they can go into the houses and they are together every now and then, because that is what they tell them when they are together at all times. And even when the women come at the time of work, we ask them who told you to come? And they say is it this person who came to my home to inform me and we should come." IDI12 (Health Manager)
Follow-up to ensure that beneficiaries adhere to treatment	*R3: "Yes there is additional explanation. And then when they come and collect the milk, we go round their homes to go and check how they give their children and we show them how to give them, everyone according to how our leaders instructed us to give it." FGD21 (Male Community Volunteers)* *R3: "truly I work more than with mothers. In the work I do, when I get into a home, I ask them questions about the milk they were given here, and after they go home, I follow up on Wednesday, Friday and Saturday and ask them how they have been fairing after giving their child the milk. Have they been following the instructions? That is my work with mothers." FGD13 (Female Community Volunteers)*
Encourage word-of-mouth promotion of CMAM	*R5: "(interrupts) and then, another way we follow is; when some come here, we will tell them that please when you go home, tell your relatives with this kind of problem to take their children to for checkups." FGD21 (Male Community Volunteers)*
Contribute to community development in other ways apart from CMAM	*R3: "Salam. We contribute in areas like sure-p in areas that affect the hospitals. To be honest we benefit a lot from the committee and we help out in planting trees and sweeping the hospital and other small fixtures that we don't need to tell the Government about. We raise the money among ourselves and we come and fix it by ourselves as we are from the town and we want to see our hospital in a good shape and we also want it to progress." FGD24 (Male Community Volunteers)*
Provide all kinds of support to CMAM beneficiaries	*R2: "We do everything within our capacity to encourage the people. We get their mobile numbers and call some of them who are afar off to inform them about the medication. We contribute transportation fare when the need arise and do all we can to encourage them. We feed some of them right here when they are hungry and so not have money to buy." FGD18 (Male Community Volunteers)* *R4: "I am (mentions name). We thank God for this our committee. We ourselves come together sometimes on other days, doesn't have to be on a Wednesday. We come together and have a meeting on what we should do and what to fix. Sometimes we also take care of different things like he said, we get hawkers that come here, and a lot of women in the queue patronize them by buying their food so you see this is not proper. But now when they(hawkers) come we take them out to the front of the hospital, they can sell whatever they want there and apart from that when the women go we check and see how they give their children this programs when they go home, we check and see all these kind of things. If we find out they don't give the required dosage. We tell them that even if they give the child and there is some leftover they should cover it with a plastic back and after they go home they should give the child the remainder and we thank God they understand the explanation" FGD24 (Male Community Volunteers)*
CVs play a very important and supportive role	*R: Sincerely this programme is compulsory with the CVs because it is a huge work which I think it cannot be run without them, because if they are not part of it I don't think the health workers we have can alone coordinate/run this programme without the Community Volunteers." IDI18 (Frontline Health Worker)* *R: Honestly, the CVs are here to play their roles in promoting and achieving the goals of the programme even though it is not their work. It is then my responsibility*

	to supervise them. This is more so that it concerns how to improve the health of our children and women and so we wouldn't want any one working here to do anything capable of derailing the programme. IDI11 (Health Manager)
Attending to CMAM cases and other cases	*R: for example, since we (health workers) are much in the hospital whenever emergency cases come to us on Thursday during tamowa program, an officer goes to attend to the patient and to meet the need properly. There are also those who come around neither for tamowa nor for any other health challenge, probably to make enquiries; we also attend to these sets of people." IDI11 (Health Manager)* *R: That's out patient, already when we are implementing the administering of milk we get staff two or three and set them aside they are not involved in this programme they attend to people that come with medical cases an adult not coming for the TAMOWA issue we send them to these staff that are set aside to be attended to, if it is something we can handle we do if not we transfer them to General Hospital in (Mentions name of town)…….IDI22 (Frontline Health Worker)*
Carrying out several duties	*R: Ah, ah well just as I told you earlier that this hospital deals with all kinds of sicknesses and there are many duties that I am involved in with my other colleagues, such as Doctors, Nurses, shifting staff all have their duties to perform." IDI10 (Health Manager)*
Health consultation and appropriate referral.	*R: Firstly, we will get the child's name and that of the mother-since she will be responsible for bringing the child for the weekly visit. Secondly, we ask questions that relates to the child's health condition to determine cases of fever, flu, vomiting etc to enable us give commiserate prescription. Where there are cases of unidentified symptoms the child is referred to see a paediatrician for further diagnosis and prescription." IDI11 (Health Manager)*
Complementary roles between HWs and CVs	*R: Here in this town, or better still this unit where this program holds, we have about forty volunteers comprising of males and females as you must have seen for yourself, while for the regular staff we are about five (5) in this facility. Remember it is our place of work."IDI11 (Health Manager)*
Role of HM: coordination of activities	*R: The role I play, by God's Grace I do my best to see that I come into this hospital, I try to have time for the CVs to visit them town to town, I seat with the community leader and the CVs, we seat and we see them and they see us, so this increases their joy and then someone, no matter what they tell him, he doesn't agree, but as a result of that sitting, he will change his mind and agree with that is being done, because some people think that they are people that have been extracted from somewhere, it is not as if they have gone to school so how can they say they know anything pertaining to healthcare? That challenge is there. But seeing us that follow and then the meeting we have also increases the turnout of the number of children that come for this program, it is also one of the role I play. And then sometimes, if need be, I look for these CVs and have a meeting with them to know if there is some advice we can give them, the advice they can give us, that too is a role and then there is no way that on the day of this work you see me come late or absent, that too is another role I play." IDI13 (Health Manager)*

E.2 Theme: Nutrition Education

Sub-theme	Quotes
Given on CMAM clinic days	*R1: Soya beans that is what I hear them saying. They tell others but not me……. That's all I hear them say, soya beans and groundnuts. They tell them to give to their children, the ones that have been discharged; they are told to give them this. My child doesn't eat and the week I did not come was when I was supposed to ask them but I didn't get a chance to do that. He eats now but before he doesn't eat at all. He now eats Tuwo (rice meal) and when we cook lunch rice or spaghetti he won't eat it he will only eat Tuwo. He eats it on his own and if it is not tuwo he won't eat it. IDI44 (Mothers who Defaulted)* *R3: when the child gets healthy, they tell us to give him Pineapples, Bananas, Oranges and some vegetables like Moringa and Soya beans.* *R2: They said Soya beans and Groundnuts.* *R3: And some eggs." FGD7 (Mothers who Defaulted)* *R8: Laughs… That we should provide for our children body building food. FGD8 (Mothers who Defaulted)* *R1: They tell us when we go back home to give the soya bean cake and nutritious food, you know soya bean cake is good for you; it increases your blood count. They tell us to feed it to them, they tell us to give them beans and every other food that is rich in nutrients." FGD4 (Mothers Never Defaulted)*
Not being done on CMAM clinic days	*R3: They have not taught us. Maybe sometimes on the radio but apart from that they have not taught us.: FGD6 (Mothers who Defaulted)* *R3: They never taught us." FGD6 (Mothers who Defaulted)* *R9: No, but they said we should follow rules and regulations.* *R9: They said we should wash our hands and our children's mouth before giving them the milk. That we should give it to them three times in day and you don't give it to others. " FGD5 (Mothers Never Defaulted)*
Done on CMAM clinic days: difficult to practice as foods are not available	*R: even if they tell us………..when there is nothing else to cook……… (Laughing) it is only corn meal, sometimes we make 'dambu' (corn grits)." IDI43 (Mothers who Defaulted)*
Carried out during ANC	*R: Yes they told us, they said we should eat beans, or beans porridge or pasta, or rice. IDI43 (Mothers who Defaulted)*
Advice given to women the need for making balanced diets for their children	*R: The benefit truly is before the coming of this programme we usually have children that have problem of nutrition a lot before this programme we don't do anything to them because we don't have the food to give them rather we will just give them special advice on how to give their children balanced diet at home but some even if you advice on how to make the balanced diet they don't have money to go and buy the balanced diet so you see there is no way you will you know- even if you write out drugs for a child and he takes the drug everyday so loosed weight but with the introduction of this programme if a child is brought here and has that problem when this food is given to him for four to six month you will see that the child will be will be more than the way his mother will be surprised. " IDI22 (Frontline Health Worker)*

E.3 Theme: Training

Sub-theme	Quotes
Opinions	*R3: "Salam. There is no work that we will do without being trained because if we do people will get the impression that we are doing something that we are qualified to do. For example if you go around telling people that free medicine is being given out and the person comes and finds out that it is not true then he will take you as a liar."* *R4: "What (mentions name) just said is true because to be honest if you are not trained on how to do something then there is a very good chance that you are going to make a mistake and people will be of the opinion that you don't know what you are doing." FGD24 (Male Community Volunteers)* *R5: "Truly there is none, there is nothing we weren't trained on, whatever we do, then we were instructed to do it, and whatever it is, we would do it." FGD21 (Male Community Volunteers)*
Covers many issues, including nutrition/health education, screening for SAM, community mobilization, conduct of CMAM clinic activities, counselling about dietary modifications	*R4: "From people like you, they came and trained us on how to do the program. They taught us how to feed children and how to take care of them. They trained us well that we are the ones now training the new comers."* *R6: "The explained to us by showing us how to weight with our hands for the malnutrition program they taught us how to carry the children and how to feed the child. We tell them when they are going to feed them they should wash their children hands and to feed them gently."* *R4: "They gave us cards, they gave us malnutrition program ID cards, they showed us how the unborn child is in his mother's womb, they taught us about giving birth and that to breast feed the child after birth and should not be given water. They taught us all of that and we go around villages educating people about it."* *R2: "They taught us during the training to tell patients to eat good healthy food that will make them grow healthy as it also contributes in given birth to a healthy child and a healthy mother." FGD11 (Female Community Volunteers)* *R3: "They train us on how to know if that the child is malnourished……….. Secondly, They also train us on the approach and how we can see the children, sometimes you will see that his toes are swollen……….. Or the ankles. So they taught us that if you squeeze it and it doesn't push back after 3, 2 or 1minute then we should advice the parents as the child is malnourished."* *R5: "Salam, they also taught us about clean, they taught us that before the parents feed their malnutrition child they should wash their hands and that of their child." FGD20 (Male Community Volunteers)* *P4: "Truly, they taught us many things concerning the (P3 interrupts) they taught us regarding this work of malnutrition because what they taught us that I can say I held unto averagely, they said when we enter a house to check, this work is voluntary, if we feel we can, then we do it and if we feel we cannot, then we can leave, no one will see your fault, there is no payment, it is God who pays a person (person coughs) and I am content and I have taken an oath that I will continue to do the work between man and God. And so they said when we go for checkups, first how we can know a child has malnutrition is; we will notice that the child's head is red and his face is swelling, if the swelling is much, it will extend to his legs, when you want to examine him, you squeeze his leg like with your hand this (demonstrates), if your hand goes in and doesn't come back, then that is a sign that he has malnutrition, then you can take him to the hospital, when you bring him to the hospital and he is examined, then you will continue to give him the milk and he will be well. Then we continue to sensitize the mothers of the children to please look after the children and*

	give them good food, even if they discharge your child, you can make kunu (cereal) and give him, you can put soy beans or groundnut, you combine it and grind it together and give the child and then try to clean the environment, lack of cleanliness can cause sickness for the child like this. That is what I remember (laughs)." FGD13 (Female Community Volunteers)
Regular training and retraining being done	*R: Well, we are been retrained from time to time. For all of us that have been trained before, we are been re-educated or retrained on the work again. IDI18 (Frontline Health Worker)* *R: we are given, there is no problem truly, and they train us regularly………….. well in a year, they have given us training five times now" IDI21 (Frontline Health Worker)* *R2: "We undergo training always, before giving out milk we are always reminded on what to do." FGD22 (Male Community Volunteers)* *R: Honestly time to time we are being called upon, sometimes in the local government level other times at the state level especially it is hard to see that in a month that we are not called even if its once a month; sometimes once or twice in a month sometimes we do it in our local government in that the state team will come to the local government level and enlighten us on how the work is done other times they call us to the state and we will be kept in a hotel and we will be having seminars on the improvement, what is the way forward and what are the challenges of it we will also have enlightening the one that you don't know you will get to know about the programme. IDI22 (Frontline Health Worker)*
Training not regular	*R: it is up to one year, one and a half years in fact since from this OPD, we were only two that went for this training." IDI12 (Health Manager)* *R: it's been a year now since we were trained on this program, and what we were taught since time back is what we are using because we were given guidelines on this wok and we check the text book and see all what it tells us, it is from there we will resolve it.*
Lack of training for newly employed HWs	*R: Well such challenges exist. Staffs are not enough, and those that have been trained before are still the ones on ground as new ones have not been trained." IDI18 (Frontline Health Worker)*
Trained on everything in the job	*R1: "Well we are using everything they taught us." FGD11 (Female Community Volunteers)* *R2: "There is no work that they tell us to do without training us for it." FGD 12 (Female Community Volunteers)* *R: No. we can perform/do everything we are been taught…………………… Well I don't think there is anything that we have not been trained on and yet we are expected to do or implement. Sincerely, everything we do is what we have been trained on or taught to do." IDI18 (Frontline Health Worker)* *P3: "No [there isn't any changes we want to see in the area of training], we are very pleased with it, it is okay" FGD13 (Female Community Volunteers)* *R9: "No, we were trained for all the work we do." FGD16 (Female Community Volunteers)*
Training not carried out on everything	*R: Yes, I wouldn't say there isn't but everything that is done, they have touched little on it except what wasn't implemented in our presence, but if it is on CMAM alone, truly they have taught us on it." IDI20 (Frontline Health Worker)*

	R: Yes, except something new, you know sometimes there are changes or additional forms to fill which you don't know about but because it is in that program of yours, even if you don't know they will give you, filling the form itself is difficult, or understanding it and our leaders who we will ask on time. *R1: "I once did something of such [play a role without prior training]. I came across a woman who gave birth but the breast milk was not flowing. The umbilical cord was cut and everything was fine except for the absence of breast milk. Some were saying the breast may remain dry for a week or three weeks but I made the woman sit down using the information I got from the radio. So I continue to do like this to her and after a while breast milk started coming. So I asked them to wash the breast and they did and I asked them to feed the infant but some said no, no until the breast has been treated and I said that God has already treated it. The infant was given the breast milk. Even yesterday the mother brought grains to me in appreciation. The breast is full and even pouring. You see this skill is from God not from us. You see I just tried (laughter/ cough in background)." FGD15 (Female Community Volunteers)*
Training was conducted before the programme commenced	*R: Before the programme came on board, there were some people who took the responsibility of meeting this need. They came here to mobilize us as to how this program will run. In our capacity as health facility staff, they organized workshops and training sessions on how the program will be actualized. With the coming of the programme, they kept enlightening us on how best to improve on the programme. Here in the hospital there are cards we open for every child brought into this facility, to enable us measure the weight and the strength of the hand to determine a child's eligibility to be admitted into the programme. We measure the strength of the hand using (…aaah..) a tip called 'Mowax' (which is ………… in Hausa, or let me say hmmm Upper Arm Circumference in English). IDI11 (Health Manager)o* *R: We always train them in batches monthly, and even before we started this work we were trained but it has been long that we were called for training. IDI15 (Health Manager*
All staff have been trained	*R: they are all trained. First of all, they started with 4 staff. 3 staff. Two from here, one from the neighbouring health facility. They later took three people. All of them we work with have been trained." IDI16 (Health Manager)*
Carried out only by Save the Children	*R: Save the children is the only organization I know because they are only organization that gives us the training." IDI17 (Health Manager)*

E.4 Theme: Motivation

Sub-theme	Quotes
Religious convictions	*R2: "The only benefit we get is the reward that we believe Allah will give us." FGD9 (Female Community Volunteers)* *R2: "We volunteered and we believe that anyone that when you help someone God will also help you." FGD11 (Female Community Volunteers)* *R7: "What I like the most is the fact that we are working for God's sake and we are getting his blessings because any mother that we help her child pray for us and we know we are doing Gods job and we are receiving a lot of blessing which is why we leave our jobs to come and do this work." FGD20 (Male Community Volunteers)* *R5: "What encourages us is that we are told as Muslims that Allah blesses every good work. Take a look at our children now, they look healthy and strong. Such things are in themselves motivating. Consciously or not, the children pray for us. Sallam mu allaikum."* *R1: "Alhamadu Lillahi. First and foremost, we thank Allah because the rewards we are getting from him are unquantifiable. ………………..." FGD18 (Male Community Volunteers)* *R1: "It is because of God we do" R2: "……………This volunteer work you will do it because of God. We are here doing it because of God" FGD15 (Female Community Volunteers)* *R4: "We are doing this work for God to reward us. Human being cannot reward us." FGD22 (Male Community Volunteers)* *R1: "that day that is fixed is okay for everyone and all the work we do, before that day, you will be able to round up and tidy up and so there will be no interference that can stop you because you have sacrificed that day to help because of God and if you don't go you get discouraged because that can take something big away from you." FGD21 (Male Community Volunteers)*
Increased knowledge about health/healthcare	*R6: "My motivation is the enlightenment and the lifesaving information we got from training and how people look up to us every day for some new information about the programme."* *R2: "Asalama alaikum, (peace be unto you) I came to this hospital with my child and we were asked to wash our hands, this was the first thing they taught us. Our perception about health changed because I don't know the importance of washing of hands properly with soap or potash before breast feeding my child and also before eating." FGD10 (Female Community Volunteers)* *R5: "What I like is the way God remembered us and relief our suffering from malnutrition/hunger. The way you pointers were able to point and locate us is a welcome one. Before your arrival, I had spent a lot of money treating my child thinking she was suffering from spiritual attack. All our children are in good health now. That is all I like in about this malnutrition/hunger programme." FGD16 (Female Community Volunteers)* *P4: "we get the education we can from it, but apart from it, the financial aspect or some think that maybe along the line there may be some incentives or salary with it, but now it is clear that it is all about what we have committed ourselves to doing, since it is voluntary. There are some that sought to opt out because they couldn't cope." FGD23 (Male Community Volunteers)*

Improving child health and saving lives	*R6: "There are times when some children are brought here with all the evidence to show that they are malnourished and most unwell, some of them look so thin, weak and pale but after being treated for two to three weeks thereabout, they are totally transformed. This is gladdening and very encouraging and motivating to us." FGD9 (Female Community Volunteers)* *R5: "We are doing it so that they will get healthy, when they get healthy we feel happy and we thank God for that." FGD11 (Female Community Volunteers)* *R1: "We get pleasure from helping the people and their families and their children, they become happy and healthy, and this is why we get pleasure from doing it."* *R2: "A lot of children were malnourished and because of us and God a lot of them are now healthy………...What makes us happy about it is that we are doing it so that we can help ourselves, they are our children, our younger ones and so on. So that is why we are doing it so that we can help ourselves and not for any other reason." FGD19 (Male Community Volunteers)* *R9: "What made us become part of the programme is helping to preserve the lives of children. Just as we have our own children, we wanted to help in taking care of other people's children. And you know, only Allah knows who will eventually benefit from those children. "FGD18 (Male Community Volunteers)* *R3: "Well our major motivations are seeing children who come in distressed and weary receive help and get cured. It is a major motivation for our continuing on this programme." FGD17 (Male Community Volunteers)* *R6: "Will encourage us is seeing that children are getting healthy because of the program." FGD20 (Male Community Volunteers)* *R5: "Salam, what we gain from this program is not that we gain anything personal, what we gain from it is to see our children, our relative's children and children of the community getting healthy." FGD24 (Male Community Volunteers)* *R4: "Yes. There is happiness too. When we called for this volunteer work we were told that it is for ourselves because our children are affected, our grandchildren are affected. What we do is for ourselves and we believe so because now they are healthy. The sickness of the past is no longer present. God has taken it away from us." FGD15 (Female Community Volunteers)* *R2: "What attracted me to this programme is before the coming of this milk if you see some children, you would almost cry for them. But as this milk came, children have survived. If you see them behind their mothers, you won't believe that they are from the country side." FGD22 (Male Community Volunteers)* *P5: "What motivated us is because, our families that have been sick and we have been searching for the clue, and now this milk is helping us and our children cure this malnutrition and that is why we are sending mothers to go and inform their friends to bring their children. And in Gods mercies we see children, even during our rounds, we inform them on what is given and we see children getting well, that is why we came into this program, it is helping us and our children, Sir." FGD23 (Male Community Volunteers)* *R5: "What fascinated me was because it is charity work on helping little children from their problematic condition, and that is why I want to see myself in it so that I too will be amongst the few that are recognized that I helped in saving the lives of little children." FGD21 (Male Community Volunteers)*
Desire to contribute to	*R1: "The main reason we joined this program is because we like anything that will improve our Local Governments, States and Country and we feel that as citizens we should contribute and help where we can. That's why we feel that we should talk*

human/ community development	*about the kind of things that we are doing and come and help the health workers of this hospital in making sure everything goes well for the malnutrition program every week." FGD24 (Male Community Volunteers)* *R10: "Whatever worthy purpose you pursue attracts Allah's blessing and once blessed, its impact will be felt everywhere. Leaving this program is not even an option at all. What we seek is to strengthen it the more. The people are interested in it because they are benefiting immensely from the program. This is encouraging for us." FGD18 (Male Community Volunteers)* *R3: "I just want my community to be in good shape that is what encourages me. Not because of money."* *R5: "Because this programme has been of benefit to our community."* *R6: "I want my town to progress."* *R3: "My benefit is that my town is enjoying this programme……. The progress of my town is my benefit." FGD14 (Female Community Volunteers)* *R1: "Truly they told us right before we started this work that it is voluntary and you are not going to get paid, except if you think you can do it, and we said okay, it is all for the progress of the community that we can put ourselves to do it and whatever it is so that our community progresses." FGD21 (Male Community Volunteers)* *R: I use my strength, what I studied to do the supervision. If I do it, I'm serving humanity." IDI17 (Health Manager)* *R4: "To help the Council"……. FGD13 (Female Community Volunteers)* *P2: "well what motivates us is; I see that it helps our families, relatives and also grandchildren, we have seen that it has really advanced and helped our community, and that has really strengthened the work." FGD23 (Male Community Volunteers)* *R: Well, sincerely we will say we don't get/receive any support/assistance as we coordinate the programme. What I will say is that we see this opportunity as a privilege to sacrifice or give our commitments. But our joy /fulfilment are that since we are getting this (benefits) for our community, it does not worry us, and therefore we are committed to doing our work." IDI18 (Frontline Health Worker)*
The material incentives received	*R1: "When we joined the malnutrition program and we were made to train with women, they all left and didn't stay, only 15 of us stayed. (Mentions name of person) told us to go and do it, people laughed at us and said we were wasting our time but when they noticed that we were being given a N1000 that's when they started coming back. As for us, it has been three years now since the program began." FGD11 (Female Community Volunteers)* *R8: "I get [husband] some soap money." FGD 12 (Female Community Volunteers)* *R2: "The little thing you give us is my benefit, but please try to increase it." FGD14 (Female Community Volunteers)* *R unknown: "The little help we get encourages us." FGD16 (Female Community Volunteers)* *R: .... rather they should be encouraged with supports this organisation should support them to encourage them so that they know that this organisation is with*

	them we have been informed self that there are some CV's that will be sent on pilgrimage from this state (mentions name of state) it is near to us here (mentions name of village) they were given seat after casting votes a woman won and she will be going on the pilgrimage so you see this is an encouragement and development to us, them and parents of those that have these problem. IDI22 (Frontline Health Worker)
Respect, gratitude, prayers of mothers & fathers of CMAM beneficiaries, and popularity with them	*R3: "We get a degree of respects from people in the community as they grant us audience when we address them on what we know and are doing." FGD9 (Female Community Volunteers)* *R2: "Anywhere we go people are proud of us." FGD11 (Female Community Volunteers)* *R10: "Well, this programme has made many of us popular and well recognized in the communities. I in particular, people now know me and parents whom I have helped in one way or the other at the hospital respects me very well as a worker in the hospital." FGD10 (Female Community Volunteers)* *R5: "If they see us the volunteers that helped cure their child they are always grateful, I have had about 5 people here that came to my door steps at home just to thank me." FGD 12 (Female Community Volunteers)* *R7: "Secondly, the way that we are respected, the parents of the children are always thanking us for the work that we are doing." FGD20 (Male Community Volunteers)* *R-Unknown: "Prayers from the community. The blessings, appreciation and the good health that our children are enjoying: Those are the rewards or benefits we get from the voluntary service." FGD18 (Male Community Volunteers)* *R1: "There is no greater benefit than the one coming from God (Allah) Almighty that rewards them; we are just doing our own humanitarian work for the transformation of lives of human race. The community appreciates us for offering ourselves to serve them voluntarily." FGD10 (Female Community Volunteers)* *R8: "The way people welcome us anywhere we go is what I like most. Whatever we tell them, they don't hesitate to obey us; even bringing their children to the hospital." FGD16 (Female Community Volunteers)* *R5: "Okay, it adds value. To hear people say well-done, we are happy about what you did, well-done, may God further uphold this government." FGD15 (Female Community Volunteers)* *R10: "We have helped in eradicating malnutrition, if you see some of the children; you would think they had never malnourished before. It has also made us popular in this society." FGD16 (Female Community Volunteers)* *R4: "Yes, the benefit that is have is they bless us, when members of the community they take (car passing by) their children and they start giving them that milk, when they see that the children are well they will bless the organization and thank them for what they have done, that is the way we get that benefit, anyone who is blessed progresses, and so we are proud of that." FGD21 (Male Community Volunteers)*
Sense of satisfaction/ control / it works	*R11: "Another observable effect is that all the children who receive this medication here are proofs of its efficacy. This is our greatest source of encouragement. Alhamdulillah!" FGD18 (Male Community Volunteers)* *R6: "me, I have always welcomed this program. I am always happy doing this work……… I don't need to be paid. People ask us did we work, we said yes we worked. We are just happy. If anyone comes we say come and join us."*

	R1: "this gives me joy." FGD13 (Female Community Volunteers) R2: "There is addition. What makes me go out every Wednesday to go round is because it is now to me like eating food. It is a part of me whenever I wake up healthy and hearty… What makes me go out each Wednesday is to see these women I brought; how many of them will be discharged this morning fully recovered? How many of the women I asked to come to the hospital actually came? And if some do not I go back to find out why. This is what makes me eager for Wednesdays to arrive." FGD15 (Female Community Volunteers)
Social interaction it affords	R8: "I am out here and my husband is at home with his white beard." FGD 12 (Female Community Volunteers) R4: "Because of the good feeling of coming out..." FGD11 (Female Community Volunteers) R3: "I enjoy coming to the hospital every Wednesday because it has become a central meeting point for the community" FGD10 (Female Community Volunteers)
Hope of future rewards from the government/ elsewhere	R1: "We are doing this job for God's sake and we know that the government knows about us. So we are still here and one day they will remember us. Some people are now laughing at us but......When there is work to be done, we are volunteers we do it for the blessings, like this TUWO if there is a job with them they can put the malnutrition workers but we didn't get any." R2: "And we want them to give us." R4: "What this old woman is trying to say is when there is a job opening they should put some of us here in the job, that's what she is trying to say." FGD11 (Female Community Volunteers)
Family's encouragement	R10: "We thank our families for even encouraging us to participate in this programme." R1: "My children encourage me." R1: "My husband encourages me." FGD16 (Female Community Volunteers)
Expectation of their job	R: Sincerely, this is among the major activities/work that we do because every Wednesday it's like it (Wednesday) is waiting for us or we are waiting for it (Wednesday), frankly speaking." IDI18 (Frontline Health Worker)
Peer support / satisfying working environment	R: Honestly because of, how our CVs carry out this work, they are trying and informing people and we are getting a good turnout, people come, and this route is very good and they are helping us very much." IDI12 (Health Manager) R: the things that encourage this work I can say we have one or two things. The first one we the health workers because people is karkara is patience if there is no patience it is something that you see will benefit him but because of impatience he will not come to collect what will help him but us here we have understanding between us and our workers and those CV Community Volunteers and also mother care those that bring their children if they come we welcome them with two hands, joy and smiles and they are happy and we tell them what it is expected of them to do to their children this things we do to them they are happy; they will understand us and they will follow the rules and regulations we give them." IDI22 (Frontline Health Worker)
Regular supply of drugs	R: What encourages us is that the drugs for this are always available, we never run short of it."IDI15 (Health Manager)

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E.5 Theme: Supervision

Sub-theme	Quotes
Encouraging	*R5: "[Supervision] is encouraging and makes things work very well"* *R3: "It makes them know that we come to work every week. Coming here shows that they value what we are doing. When they come they greet and speak very well to and with us." FGD9 (Female Community Volunteers)* *R5: "We need supervision because it encourages us." FGD14 (Female Community Volunteers)* *P3: "There isn't [an aspect of our work that we require that they need to monitor], but we are happy that some come around to check on us. Now we are very happy with your coming because you have brought blessings of God. We are happy, if a visitor comes, you receive him with two hands, and you don't know the blessings he has come with. (Cross talk) we are happy." FGD13 (Female Community Volunteers)* *R: Honestly, we are very much encouraged with their routine visits aimed at improving on our work. It builds our confidence when people come around to enquire about work environment and situation and how to improve it." IDI11 (Health Manager)o*
Provides guidance and support	*R2: "(A person) and two other people come here on weekly basis for the purpose of supervision."* *R-Unknown: "There is one (a person) who is a doctor from the local government and the others."* *R4: "They watch us closely as we work, render assistance where necessary and correct whatever may not be absolutely right." FGD9 (Female Community Volunteers)* *R1: "Yes some people come and we bring back a report every day, every week and every month."* *R2: "They just watch us and if they see us making a mistake they tell us and if we are doing it right they will also praise us."* *R1: "They come every week to check up on s giving out the milk (malnutrition pack), they help out a lot to be honest." FGD11 (Female Community Volunteers)* *R3: "When they come and meet us working, they correct mistakes where there are and demonstrate how to do it." FGD17 (Male Community Volunteers)* *R3: "When we sit over there doing our work they go round checking what we are doing if they see us making mistakes they talk to us if not they just pass." FGD15 (Female Community Volunteers)* *R2: "They remind us of anything that we might have forgotten."* *R3: "They also participate in the work at times." FGD14 (Female Community Volunteers)* *R4: "Every week they come to visit us and see how we are doing the work and how the work is going, is there a problem or not, and if there is a problem, there and then they will correct us and tell us to stop it, you know how livelihood is."*

	R4: "Okay, there is someone from the local government, and then (mentions name of a man) comes all the time to visit us and give us more advices all the time on how we would avoid challenges." FGD21 (Male Community Volunteers) *R: This work is actually based on trust and it is most times difficult to see all that is done in the field, however, wherever we see disparities we usually seek clarifications from them. You see there are differences in the work style of literate and illiterates and this calls for supervision and corrections regularly." IDI11 (Health Manager)o* *R: The supervision is useful because they show us what we easily understand; they show us what we are supposed to do. Some things we do they see and say it is good." IDI25 (Frontline Health Worker)* *R: At all times we supervise, at every time the program is going on, we supervise it. To check whether there is some inconsistency it will be tackled and what needs to be done will be done." IDI12 (Health Manager)*
Ensure programme is successful	*R: Honestly, the CVs are here to play their roles in promoting and achieving the goals of the programme even though it is not their work. It is then my responsibility to supervise them. This is more so that it concerns how to improve the health of our children and women and so we wouldn't want any one working here to do anything capable of derailing the programme. IDI11 (Health Manager)* *P3: "it is good because for anything that is not monitored, personal interest can come in, this checking encourages us to stand and do things the right way as expected, it is important in every situation." D23 (Male Community Volunteers)*
Not regularly done in one LGA in which CVs also seem to resent it	*R1: "No we are not supervised. The only visit we used to have is the Tamowa (malnutrition) programme officials who only come around to pay us our monthly allowance most times only once a month."* *R3: "In my own opinion, are we animals that they have to command us around? With due respect to my colleagues, we don't need supervision to do our job, we are capable of doing whatever kind of work with or without supervision" FGD10 (Female Community Volunteers)*
Desired and welcomed	*R4: "Anyone that is doing something will like to be supervised so that he will know whether he is doing it right or not. It is only if you are supervised that they can find if you are making mistakes and if we are then they can correct us. We need to be supervised." FGD19 (Male Community Volunteers)* *R3: "The supervision is very good because we sometimes make mistakes and they come and tell us directly that it is wrong and this is how it is done and by doing that we will understand and we will be happy as we will be able to do our work confidently. We like the supervision." FGD20 (Male Community Volunteers)* *R1: "In my view this visitation is admirable. I admire the fact that fact that when you are going the wrong direction they bring you back on track. When we make mistakes they correct us. Gradually this work is understood by all." FGD15 (Female Community Volunteers)* *P3: "we are happy with the person who comes to check on us, visitors are always welcome, now you see your coming is delightful because there are some things we don't understand and you are explaining it to us. We want visitors to keep coming" P4: "because it is progress for us (cross talk)" ……… FGD13 (Female Community Volunteers)*

	P6: "That supervision is very important to us because someone may be doing his work and forget something, but seeing someone stand up to do it, he will remember and he will continue to do it." FGD23 (Male Community Volunteers) *R: truly, we are happy with this supervision they do because when you are carrying out your work especially government or another organization, then you will be happy if some come and check how you carry out the work, they will make some repairs and give advices on how the work will go on as it should. We are very much happy, hundred percent." IDI19 (Frontline Health Worker)*
Recognize the importance of supervision	*R: In everything that anyone does when it is observed there will be areas where corrections can be made and he will be told (inaudible segment/speech for 2 seconds). Through this way they are imparting knowledge on us where we have done well and where we can improve. We learn from each other." IDI-HM-ZmfaraBakura* *R: Yes they are the organizers and when there are any observations, mistakes or any advises they call us in time to inform us, and if there is anything that is expected for them to see us personally, they call us, and if there is an adjustment they will inform us and also if there is something new, she will tell us this is what they have brought for us, and if there is a strategy we can use, we try it together." IDI20 (Frontline Health Worker)*
Supportive supervision carried out regularly	*R: There are staffs of this organization from (mentions name of town) they come every week when we carry out this work, they check how we do this work, for example in (mentions the towns and name of persons in charge both male and female)" IDI19 (Frontline Health Worker)* *R: Supervision officer comes. The local engagement officer every week. They come every week. There is the LTE officer comes to look and moves to another site IDI-HM-ZmfaraYarkfji*
Different officials carry out supervision	*R: Well we normally have officers from the state level who come to supervise us at intervals (I do not know their names though). At the local government level, we have (name) responsible for … (14:40) inaudible speech, (name) responsible for …… 'inaudible speech,' (14:46)… and (name) responsible for women's health. These people have really being trying in ensuring our work here goes well." IDI11 (Health Manager)* *R: ……………….. The community mobilizes are in charge of this supervision to ensure that everything is going well. We also have some health officials who come first to check them along with the community mobilizes." IDI10 (Health Manager)* *R: Toh here truly we have in our clinic or IC in charge of this clinic then two IC then there is a ward of the chief called (name) who takes care of this things and then the local government supervisor there is engager he comes time to time to supervise and look at our activities if there are errors he will correct where again there is need for advice he will give advice on what is supposed to be done and we follow the rules as God grants the grace. IDI22 (Frontline Health Worker)* *R: (Mentions two names) come for the supervision.* *R: The first one is a facilitator at local level, while the other one is a staff of the government." IDI15 (Health Manager)*

E.6 Theme: Communication with mothers and fathers of CMAM beneficiaries

Sub-theme	Quotes
Need for timely information/ communication mechanism between community and health system	*R1: "Arrangements should be made for us to be able to contact the parents of those children ahead of time and tell them not to bother coming all the way here on the days the product will not be available. This is because some of them come from afar and spend a lot of time and money to get here only to find that the products are not available. They should provide us with handsets, recharge them and train us on how to use them to inform the people ahead of time."* *R2: "There are times we also come here, wait for a very long time only to be told the products are unavailable. They should arrange for how such information will be getting to us ahead of time." FGD9 (Female Community Volunteers)*
Education to address misperceptions about causes of illness	*R: The reason they don't come is; and what I said is it, they just believe that it is hunger, and that is why their husbands stop them. (IDI_Father of non-defaulter Jigaawa)"* *P4: "(mentions name) this program fascinates us very much, why I said so is because, we have seen changes since time past, because there are many children who were sick and it looked like it was a different ailment, not knowing the problem was hunger and other complications, and formerly we didn't have such enlightenment, but now when we are going round we are seen as health workers and we give advices on these problems and it is important because now you hardly see a child with such problem……………………….."* *P4: "we get the education we can from it…………" FGD23 (Male Community Volunteers)*
Poor communication about reasons for ineligibility	*R: what should be done is; you know some of them when they come, they are not treated well and they refuse to collect their child and they collect another, and so she will go away hurt and she will go and not come back, and when she goes back, she will tell others that they have stopped giving, so you see there is a problem there (side talks), a woman will come and her child will not be taken and when others come and are given the milk, they won't take it home, they will sell it and you see that is why when health workers hear, they are not happy. (IDI_Father of non-defaulter Jigaawa)*
Need to provide information about need to adhere to treatment regime	*R: Okay, you know in our position as those who deal with people through marketing and other human relations, we hear some things that are happening. This sometimes happens because of lack of means to keep transporting themselves here until the end of the programme. Some stop as soon as they see the child has recovered without completing the full treatment. Because of this I think there is a reason, some withdraw because of the suffering, some it is because of the rivers during the rainy season, one week they may cross, another week they would meet water and have to turn back. This kind of problem is one of what is causing it. (IDI_Father of default; Jigawa)."* *R: you know some people may go to the hospital, then after being given drugs they start feeling better and They now start having the feeling that they are now well and back out Of the treatment, that is one of the things that cause it. (IDI_Father of default; Zamfara)."* *R: You know in our position as people who meet with others every day in the marker front, we hear what happens. Some happens because of lack of what will bring him to where he is or what will carry him right to the end of the program, that is transport. And another, the moment he starts, when he sees that the child is better, he will not check to see what has been given to him, he will just withdraw without checking the*

	guidelines of what is expected of him to take, and so what I am thinking is; there is a need, anyone you see withdraws, honestly there is a need, it may be the river during rainy season, or this week they collect there is no water, the next week when they come out, it is raining, and they have to go back. So this is one of the reasons that is the cause. (IDI_Father of non-defaulter Jigaawa) *R: what happens is that some times after taking the drugs once and the child gets well, the mother then stops coming to the hospital ,or if she is being told her child is now well she then comes around to say she is grateful. (IDI_Father of non-defaulter Zamfara)*
Need for information about how to deal with feeding problems	*R: Well the reason is, why she stopped going up and down is; we tried to make the child eat and he refuses to eat, we tried to force him but the child locks his mouth, sometimes we hold his mouth, but he still locks his mouth, we have tried but he refuses. (IDI_Father of default; Jigawa)."* *R: when they start collecting the first, second and third time, then they withdraw. It depends on the child for instance, maybe the sickness is too much, because someone will be given that milk, there are times when they give someone and the moment he takes it he vomits, when he takes the milk, instead of him getting better, he throws up, and when they give him the second time, he may throw it up, so if he is given the third time, and he vomits again, that is what will make the mother of that child feel that that milk is not good and she will not take him again since when he drinks it, he vomits. So instead of them to bring their complaint here in the hospital, and explain to them so that if there is another method they can take, but their problem is they won't do that. (IDI_Father of non-defaulter Zamfara)*
Need to target husbands with education	*R: I think their husbands are the ones that insist that the women must bring the children. (IDI_Father of non-defaulter Jigaawa)* *R: and sometimes they may desire to come but the problem could be lack of permission to attend. (IDI_Father of non-defaulter Jigaawa)* *R: it depends on if its carelessness from the husband's paths. That is why the ways of a villager is hard to understand. For example when you are trying to explain something to a villager, he will read meanings into it. This is a behaviour known of the men that is why the women skip weeks. (IDI_Father of non-defaulter Zamfara)*
Need to address reasons for distrust	*R: I told you this earlier, I don't know anything about this Tamowa (malnutrition) programme. I don't support the programme. When she left home the day of that programme she would not come back home on time. So I feel was not just the programme she attended. R: I don't know, she brought the plum peanuts home the other day it was looking like salt and I don't want anything that will reduce my child fertility in future. (IDI_Father of default; Zamfara)."*

E.7 Theme: Reporting

Sub-theme	Quotes
Monthly and or weekly reports are submitted	*R:....we normally give reports monthly but now it has changed to weekly such that before a meeting week we would have submitted reports from the previous week. IDI11 (Health Manager)* *R: Yes, we have the weekly report and the monthly report that we write."* *IDI12 (Health Manager)* *R: We fill form weekly and monthly and if they bring supplies we have a stock book where I enter what was received and what was given out and the balance. IDI-HM-ZmafaraYarkfji*
Reports written and sent via SMS / network coverage issue	*R: Yes, we do write reports about the programme through SMS to the officials of the programme, the number of people, drugs and the number of drugs we have administered for the day, even the number of the plum pea nut, and antibiotics……………….. No, before we started by sending our reports through SMS. There are no problems except sometimes if there is no network coverage, getting your reports sent is difficult, so at that point communication becomes a challenge." IDI10 (Health Manager)*
Content of reports: number of people seen and milk distributed	*R: Honestly, just like we for example we work on Mondays and close for the day, they check and see how many people were checked on that day, we write how many men, how many women, and then how many people came for follow up, deaths, it will be verified, how many milk was consumed, sachets, cartons when it is confirmed, then we write it down." IDI12 (Health Manager)*
Too many reports required at the end of the month	*R: the challenge, truly there is no challenge we face, but the biggest challenge is one; the reports are many, that is all, this one if from us, and apart form that there is none, we give the report on time, but when it is the end of the month, then our minds are divided and the activities are many the RI, ANC, CMAM, Malaria, (laughs)." IDI13 (Health Manager)*

E.8 Theme: Products & Technology

Sub-theme	Quotes
Stock outs of RUTFs	*R3: "……………..the challenges that we face with the women that come and collect it is that anytime we get a little problem like the malnutrition packs are not brought to the hospital because there was no money to buy petrol for the vehicle that will bring the malnutrition to the hospital or something like that………..." FGD24 (Male Community Volunteers)* *R4: "Another problem is when women gather in their numbers and there is no stock of what to give them? ……………...Yes, Tamuwa and drugs. Sometimes a woman transport ₦500, ₦1000 to come here and we can't meet her needs, when this happen we are not happy as staff working on this program." FGD17 (Male Community Volunteers)* *R6: "The challenge was that people gathered and they said there wasn't milk, and even we were not happy because some people come from the villages and elsewhere and came, and the child is there, but thank God that was the last, in this work the only problem we had was going to invite people and they came and there wasn't milk, so we were worried but they said pleaded with us that there was a mistake, till the next week, that was something that really upset me because people came from town and villages and you were instructed to invite them and he came and didn't get, you have to be upset and so since then we thank God we have never had such problem that they come and there wasn't milk." FGD21 (Male Community Volunteers)* *R: we ran short of it? Truly even the last month that passed, when we started working, I think it was only two months and God brought (mentions name of coordinator) and he instructed that it be brought from (mentions town), that is where we get it from, so they went and borrowed it from there." IDI12 (Health Manager)* *R: September October 2013…………….. we had shortage of [the milk for malnutrition] and amoxilline. IDI16 (Health Manager)* *R: Since 2013 we had a shortage of milk twice In June and in August we had shortage of milk once. From that time till date we have sufficient milk. We have enough for several months." IDI17 (Health Manager)* *R: Good, the problems that are faced is, sometimes there is shortage of the groundnut, or you find little quantity, those that come early take it and you find out that a woman who comes since morning will wait up till noon and she doesn't get it and goes back, so sometimes, if it is not you who puts pressure on the woman to come with her child on that day, it is not convenient. (IDI_Father of default; Jigawa)"* *R: Indeed there is no problem greater than this [money – suggested by interviewer] because anyone who comes today and does not get [plumpynut], a week later he does not get; as poor as some are they spend up to 600 naira in one day, just for transportation, apart from their feeding, apart from the work they left undone at home. This is among the things [stock outs] that discourage people but if government or this organization will continue to bring it without failing, God willing, this too will disappear. (IDI_Father of default; Jigawa)"* *R: .... come, the food is finished, that is the support given, they are asked to come the next week, and for some, when they are not committed will stop coming completely. (IDI_Father of non-defaulter Jigaawa)"*
Need for adequate facilities and	*R4: "The challenges that we face is that we don't have enough mats people do sit in bare ground, no cups and buckets." FGD16 (Female Community Volunteers)*

materials for activities	*P1: "averagely, we get to do everything except for one reason which we don't get to do because not everyone has the means. Formerly we had a well that constantly gives us water, then it spoilt, now when we come, we the CVs have to fetch water that everyone will use to drink, wash their hands and give the children, sometimes we can and sometimes we can't, we just allow those who can to do it." FGD23 (Male Community Volunteers)*
Stock outs of drugs	*R- Unknown: "One problem encountered here is the insufficiency of medication. There are times people come here from far distance and stay on the queue for a very long time only for the drugs to be exhausted before it gets to their turn to collect. They should help us look into this because it courses a lot of hardship especially for people who turned from long distances. Sufficient drugs should be provided for the people" FGD18 (Male Community Volunteers)*
Stock outs of other materials	*R4: "Yes sometimes the materials are in short supply, there should be pens and the weighing equipment at all times, they should have a constant supply of all the things that we need, we shouldn't be getting shortages. So that when we are going to work, everything is available." FGD19 (Male Community Volunteers)*
Products provided by an organization	*R: well, truly there are many aspects, but getting quality health for their children, because we give them this milk and the medicine supplied, because anytime they bring this Amoxil, Arthemeter tablets and other antibiotics that we give those children, to ensure that the get quality healthcare on this exercise, and it is this organization that brings all this." IDI20 (Frontline Health Worker)*

E.9 Theme: Human Resources

Sub-theme	Quotes
Need for more volunteers	*R1: "My advice is that we should be made stronger, even if it is to increase the number of women. We can bring them, we should just be made stronger." FGD11 (Female Community Volunteers)* *R3: "I think in my own perception, all the changes that this programme need is to employ more staff who will complement the effort of this other health officials. To be sincere all what this programme need is more health officials that will be deployed to all the communities." FGD10 (Female Community Volunteers)* *R5: "We can fix this problem by coming together as Community Volunteers and talk about it and to broaden the Community Volunteers by adding more people into it, so we can add for example two people to each side and by doing this we can finish this program on time." FGD24 (Male Community Volunteers)*
Need for additional training not covered/ value basic education for volunteers	*R1: "We want the training to be improved, it should be improved, and if possible they should increase the payment a little."* *R1: "What we are asking for, education is something that everyone wants………. Nobody rejects education, no matter how old you are you can educate some and you will also be educated. So whenever it comes we will be educated so even if I get stuck I will be educated." FGD11 (Female Community Volunteers)* *R1: "Taking measurement for the girl child and those things that make up for her basic hygiene………. They taught us nail cutting, hand washing, but not basic education of hygiene that could brighten the appearance and countenance of a girl." FGD17 (Male Community Volunteers)* *P4: "Like what we weren't taught; like going into the villages to mobilize people………. how to start…………. it is important because entering our community extends to, people coming from (mentions state), can come to this place to collect the milk" P3: "And teach us when we face challenges how to solve them, but we weren't taught on that, but if we have any problem, we contribute money amongst ourselves, it may be for some who are sick or within ourselves" FGD23 (Male Community Volunteers)* *R2: "the change we want is for us to be better educated so we can do our work well and even move to a bigger one." FGD15 (Female Community Volunteers)* *R5: "We need scholarship so that we can acquire more knowledge on health sector. Or make us permanent staff of this organization since all of us have the experience." FGD16 (Female Community Volunteers)*
Assignment of specific tasks to each volunteer to ensure efficiency and effectiveness	*R3: "Assalamu alaikun, this work we normally do is on Wednesdays and before this day and even before the program started, we usually go round in the villages to intimate the women of a new program with capable of stemming the tide of tamuwa disease. We also take weights and bone measurement for children to determine those to be recommended for the treatment on Wednesdays which is the program day. On Wednesdays when they come we organize them in straight lines, and make the doctors and make doctors run extra test on them besides the one we had done. After the doctors test, they are referred to the hand washing section, where they will be further educated. From here, we attached the patient's card used in measuring the child's weight (i.e. mowax which has details of patient's medical history). We attach a big folder (Which is like that one, pointing at a section of the building) and pass across to those in front us. Besides this, there is also a unit responsible for*

	counting, the officer count and dispense as prescribed, some 11, some 12, some 14 as is prescribed. This is a summary of the activities we carry out here." *R3: "(continues) In addition, we also advise them on basic preventive measures. Furthermore, there is an officer from amongst us responsible for advising women on how to prepare local food like ours that could help boast the nutritional value of their families." FGD17 (Male Community Volunteers)* *R5: "I am (mentions name). We do this program on Mondays. When we come everybody has his job like it was planned. Among the 40 of us, 42 of us right?"* *Rall: "Yes 42."* *R5: "Okay, we were divided into 4 some of us every week, there is a, b, c, d that is how we were divided. When your week comes up, the women on duty will get there mats and scale ready. After they prepare the mat there are some workers that are in charge of taking the children's weight, therefore scale, there are those that do the mug and then there are those that give out the milk and then there are those that check , they mark it for the children………….. Yes, the card and there are those who if you are okay to discharge, will discharge you and if they feel that you are not ready they will keep you until they feel that you are ready." FGD19 (Male Community Volunteers)* *R1: "well everything that is needed, we try to do it, the reason is because for mobilization, we are many and we share ourselves before we start, and share roles so that we don't encounter any problems and when we do that, we ensure that every group that needs support, we will send a representative there" FGD21 (Male Community Volunteers)*
Heavy workload for CVs	*R5: "The problems are that when you come here at about 6:00am, you will meet a lot of people who would have come from Gwaran or a village in Bauchi and some even spend the night. Having to work from that time till about 7:00pm with only water break is really a challenge. Sometimes it could even get to 8:00pm when the program started you have 80, 70, 60 people and about upwards of three hundred people coming for the first time. It is our responsibility to first check them before recommending them to the doctors where there is a need. These indeed are our challenges" FGD17 (Male Community Volunteers)* *P2: "in our thinking, there is definitely something that makes a CV quit. Firstly, time factor, when you spend the whole day there and sometimes you don't get transport money to go back, that is one, and then even if you get something, you will think of what to buy, up till the time they close you will not get it, and then some have taken it as if they will be given something, they have forgotten it is voluntary and so they face the reality that it is actually voluntary and there is nothing you can do about it until the month ends, and even at that you have to spend one or two weeks before you are given, so this part of what discourages them. But we at the hospital, no one has changed his mind, they are there and we are together doing the work." FGD23 (Male Community Volunteers)*
Scheduling of CV activities to reduce time-burden	*R5: "They should group us such that different groups are selected for different weeks and not every day on weekly basis."* *R3: "I support what she said. Grouping into two will be good."* *R6: "I am also in support of that suggestion on grouping us." FGD9 (Female Community Volunteers)* *R3: "You know we are about 40, and we used to go all at the same time, but then Ahmed said that 10 people should come for 3 weeks and then another 10 will come for 3 weeks and so on you see that is 4 weeks, that is a good change and nobody will be stressed." FGD 12 (Female Community Volunteers)*

	R1: "Salam, I am (mentions name). What impresses us is, at first there were 40 in number therefore 20 men and 20 women. So we planned that every week 10 people will come, five women and five men and during the second week another batch will do it so that is how did it, in a week everyone will come once so that everybody will be comfortable…………...." FGD19 (Male Community Volunteers) *R1: "Salam, Like (mentions name) said, it is like that, my answer is nearly the same as his, these changes that need to be done to make out work easier is we should divide ourselves so that if we come this week then next week someone else should come. This will give us a chance so that if we have anything that we want to do at home or anywhere else then we can do it on that day. That's all I have to say." FGD24 (Male Community Volunteers)*
Absenteeism of health workers at health facilities	*R3: "Some will come to work and will not see any workers, he will come for two days and he will not meet anybody, so he will feel like this is not serious and he will quit." …………………….. Rall: It does [happen]" …………….. R3: "Not on the volunteers but from the workers." FGD19 (Male Community Volunteers)*
Fairer compensation for active CVs	*R3: "What we need to be done is, we are 40 in number, but some only come when they hear that we are going to do a training session in (mentions name of town). The change that we want here, is that we the regulars should be put into consideration."* *R4: "Some don't only come when they know that we are going to get something, like the N1000 at the end of the month. Some don't come unless they know that they are going to get something but we come on a regular basis."* *R5: "We come all the time but when they come they give us exactly the same as those that don't come regularly."* *R6: "We are not saying they shouldn't get anything, we are saying we the regulars should be considered and our share should be increased." FGD20 (Male Community Volunteers)*
Employ CVs	*R3: "The change that we should get or that we want to get for the volunteers is to stop being volunteers and to start working here (hospital) God willing we will like it if this change was to occur…………….. if this happens everything will be simplified for us and that will be a major change." FGD24 (Male Community Volunteers)* *R6: "In addition to what my brother has said, we will want the authorities to supply us with more equipment for the work. This will inspire and motivate us to work more and better. Also, it will be very good if we can be given full time employment as this will help us concentrate fully on the job and yield more positive results. In as much as the government does not fail, we also will not grow weary." FGD18 (Male Community Volunteers)* *R2: "I think what will really help us is if they give us an offer for a job, this will be the assistance that can be given to us and our daily activities will be empowered." FGD20 (Male Community Volunteers)*
Lack of qualified and trained HWs	*R: Short "pause" ah, ah, hmmm, the hospital lack qualified and trained staff who are involved in the malnutrition programme (Tamowa) in the hospital. Another problem is the distance which people have to walk or cover to get here. There are also problems of lack of incentives and motivation to the Community Volunteers (CV)." IDI10 (Health Manager)*
HWs from other facilities leaving their primary posts unmanned on CMAM days.	*R: Just as I said earlier, we must be here every Wednesday to attend to the people, and if you do not come it is assumed you are on duty. So every Wednesday you have to be absent from your hospital. Some of us are only two in our hospital while some people are the only ones in their own hospitals yet they have to leave for the programme." IDI23 (Frontline Health Worker)*

Increase staff	*R: Yes, the adjustment is, if possible, they should increase the number of people who distribute the medicine, because most times, the staffs that distributes are few and the workload is much, that is why they stay long before they can meet the needs of the people. That is my advice, they should try to increase the number of staffs. (IDI_Father of default; Jigawa)."*
Dedicated staff selected	*R: Progress to put hands together when government helps with something to bring development to the land like this, there is a need to find people that are selfless and dedicated to duty to be put there. (IDI_Father of default; Zamfara)"*
HW continuity	*R: The work they do, between man and God, they work together and there is no problem except sometimes, they are many in the unit such that they are asked to shift, these ones come this week, next week others come. (IDI_Father of non-defaulter Jigaawa)"* *R: Well for now we are four health workers that implement/run this programme, and the reason is that we are the only ones that have been trained on it. We are also faced with transfer issues as some staff are been transferred after been trained." IDI18 (Frontline Health Worker)*
Women CVs needed	*R: Well presently, we are trying in that area, we are looking for women because men are more in the volunteers and we prefer more women in it too, because it is a women affair and we want enlightened women who can educate their fellow women.... R: We are getting, because we are looking at divorcees, and those who are going around and showed no signs of settling down, we involve them because they can talk anywhere without feeling any fear on any issue, they can stand and sensitize their fellow women. (IDI_Father of non-defaulter Jigaawa)* *R: like men and women, anyone can do it, since a woman can enter homes and advice people and then for the men, some of them can meet with others where they gather to sit and give their friends advice. (IDI_Father of non-defaulter Zamfara)"*

E.10 Theme: Service Delivery

Sub-theme	Quotes
Large crowds, and long wait times for beneficiaries during CMAM clinics	*R2: "Salam, the challenges that we face for this malnutrition is that when the women come, sometimes they reach 3-4pm so we have to gently convince them to wait a little longer that it will be there turn soon, so that it wouldn't be a waste of time on their side to come and wait a while day and leave without collecting the pack. So trying to convince them to stay is one of our major challenges and secondly some people, like I said earlier think that we are getting money for what we are doing but that's not why we are here, we are here for the progress of our community that come and collect these packs." FGD24 (Male Community Volunteers)* *R5: Yes there is as we do not live nearby and we walk the whole way. Sometimes we will come and wait until 12 noon and if we are not lucky they will say it is finished and that we should go home. So you see you have suffered and you have left your work at home. Sometimes you come and wait all day and you will not get it, they will tell you that it has finished and you have a long distance to cover.: FGD6 (Mothers who Defaulted)*
CVs and HWs do not humiliate- accept with open hands	*R4: I brought my son for 4-5 weeks and he got better and you know how it is, I was full of joy, the health workers did not maltreat me or envy me. But you know we are human and I was so full of joy that my child was healthy and running around playing that I didn't bother to come back, but we thank God." FGD7 (Mothers who Defaulted)* *R2: Especially the volunteers they are doing a very good job. God bless them.* *R1: They don't look down on us, they don't humiliate us, they don't shout on us, when we come they welcome us with open hands. They will bring some water and show us how to do this and that with no problem. They have never maltreated us or humiliated us and they advise us on how to take care of our children." FGD7 (Mothers who Defaulted)*
Need for more comfortable clinic environment	*R5: "We want changes indeed. We want a shelter here to protect us from the sun……………." FGD15 (Female Community Volunteers)*
Some tasks culturally inappropriate	*R6: "There is a program that they taught us to do amongst us men that we found a bit difficult. There is a tape that they give to us to measure the children, they said even if we are going to go to the farm we should have it on us at all times so that if we see a woman with a child that's sick we should stop her and measure the child and advise her to come to the hospital. This is a bit difficult for us because you don't know the woman, you don't know where she is from and you just stop her and tell her that you want to measure her child, she might not take it lightly and might find it odd which is why we find that part a bit difficult. But if she was to come here to the hospital then we can confidently do it……………… Like she is not your wife and you just meet her on the road and tell her you want to measure her child, it seems a bit odd but if she came here or you go to their home then you can do it." FGD24 (Male Community Volunteers)*
Need to ensure service provision begins early in the day	*R5: "As community leaders the major change that we want is one, on the day they are going to give the malnutrition, when people come, work should start early so that we can finish on time and if anyone has something to do, then they can go. This is something that we can fix ourselves as Community Volunteers." FGD24 (Male Community Volunteers)*
Request for transport provision	*R: ok. If the committee can help with transportation, to collect the milk. (IDI_Father of non-defaulter Zamfara*

	R: what I see, this problem to solve it, I feel they should be provided with Vehicles to transport them to the hospital and back home Or even take the program to the people. (IDI_Father of default; Zamfara)." *R: Me, the advice I will give is this, if it is possible like the way this organization is taking responsibility for this programme, then it should take responsibility for transporting these people to come to this place to collect supplies. If it is possible this is what I see, there is nothing beyond government and this organization. If this is taken care of there will be nothing else except more prayers. (IDI_Father of default; Jigawa)."* *R: the advice I would give is; if given a chance, just as this organization has taken charge of providing this food, she should try to support by bringing those [transport] who cannot come for this program so that they can come and collect, if this is possible this is what I see, the government and this organization, there is nothing impossible for them to do, and if this is achieved then everything will be okay, just prayers. (IDI_Father of non-defaulter Jigaawa)*
Improve infrastructure	*R: My contribution, government should help to build roads for us. (IDI_Father of default; Zamfara)."* *R: Like motorcycle, like cars, if they are moving around. When there are good roads they must come there, some places no matter how much you will pay some will not go with their vehicles, true some will not go. (IDI_Father of default; Zamfara)."* *R: What is needed to solve this problem is for government to help since all these things are for her own people and for the improvement of their health. If government helps to provide roads and bridges for places that water/rivers cut off, if it helps with these then, God willing you will see everything in the land being supported by all the people. (IDI_Father of default; Jigawa)."* *R: What can be done to resolve this is the government should help since all of these things being done is for the community and improve their health, if the government helps by diverting ways where water passes [prevent flooding so people can attend], if she can do that, then God willing everything that comes in will receive support from the community. (IDI_Father of non-defaulter Jigaawa)*
Programme runs wells	*R: Truly, what is happening, I cannot say anything ugly is happening in the running of that program except that every child that enters that program, to God be the Glory, they are thankful and full of praise. (IDI_Father of default; Jigawa)"* *R: there is none, not even a little, there is no problem with any part of the tamuwa programme, not with me or her or the child she goes with. (IDI_Father of non-defaulter Jigawa)"* *R: well these people working at the hospital, we have never seen anything that is not good with what they do. Because they give that thing regularly like they are supposed to without being selfish. (IDI_Father of non-defaulter Zamfara)"*
Programme is invasive	*R2: I don't buy the idea of people coming to start talking to my wife under the pretence of children's health or that they are healthy volunteers. Let me ask you, would you like it when people just invade your house and start talking to her? (IDI_Father of default; Zamfara)"*
Follow-up is appreciated by mothers of CMAM beneficiaries	*R: Well, like I said there is nothing, that is in my own opinion, I have not seen any changes to be made, the staffs are doing their best and everything is going according to plan, such that when they find someone who doesn't come regularly, they stop her and scold her and if she is not giving that milk according to instruction,*

	they stop her and warn her to give the milk accordingly because that is why there is little or no progress, why is that? And then for those that give it accordingly, we see the improvement, but you don't, maybe you don't give it well, and so they warn her and gradually she will adjust. (IDI_Father of non-defaulter Zamfara)" *R: ... if there is no progress, they will try to find out what the problem is whether the child is not given the milk, so you see that makes the program move forward, and if they discover that really you don't give the milk, since you have been given and there is no improvement, then it would be obvious you don't give it and they may use a tactics and act like they are not going to give you, and when they see that you are sober, then they will continue to give you. (IDI_Father of non-defaulter Zamfara)"*

E.11 Theme: Financing

Sub-theme	Quotes
Need for financial & material incentives (e.g. lunch on CMAM clinic days) for volunteers	*R6: "No problem. Only that the government should try and give us good money to at least show that we are doing something."* *R3: "The government should encourage us by giving us a substantial amount as allowances for the services we are rendering."* *R2: "I don't think it is good that we are working this hard but are not getting paid for it. The government should do something about it." FGD9 (Female Community Volunteers)* *R5: "Apart from that, the incentives that we are asking for, some of us are not from the town and they have to pay for their transport every time they want to come here so if they were to be given some allowances everything will be easier for them." FGD24 (Male Community Volunteers)* *R: About the volunteer group too, it is prayers and there is a need to support them since they volunteered themselves, but they need to be supported because they can leave their homes with nothing to eat or drink but still they do not default in volunteering themselves to make sure they do their work. Thus there is a need to support them with something to encourage them. (IDI_Father of default; Jigawa)."* *R: well that is what I have been saying since from the beginning, that what is expected is that they too should be encouraged so that they don't get discouraged on the work, like what they did now, they have strengthened them because a Nigerian wants to be strengthened and if they say they are giving, there will be an increase more than how it is (IDI_Father of non-defaulter Zamfara)* *R6: "We just need financial help especially for transportation." FGD14 (Female Community Volunteers)* *R2: "We need financial help for us and our families." FGD16 (Female Community Volunteers)* *R3: "Let the organization help we the volunteer financially so that our daily activities will not be affected……………….. Help us in any way that is possible. Weekly daily or monthly help is a welcome one." FGD22 (Male Community Volunteers)*
End-users too poor to pay for services	*R5: "They can't because they don't have the money to buy it, even if it is N200 per sachet, they can't buy it."* *R4: "Even if it is N50 some will not be able to buy it." FGD 12 (Female Community Volunteers)*
No funds for the programme	*R: No, we don't receive funds from anywhere." IDI10 (Health Manager)* *R: Honestly, there is no kobo (money) set aside for this purpose, today none of the clients can come out to say she paid a kobo before getting the meals." IDI11 (Health Manager)* *R: No, it is not enough. And when the CVs start crying to us, we tell them to be patient, it is a private organization and not the government, we always plead with them to be patient, we manage honestly." IDI12 (Health Manager)*
Funds available from State and the emirate	*R: well the state sometimes calls us for meetings. The invited us twice in 2013 in charges. They gave us transport money, also amoxilline and GV and ACT. We*

	came back with it. When we finished transporting. We sat down with the nutrition officer who gave us fifty thousand naira to buy amoxilline. Emirate bought but sincerely only once. They brought amoxilline and flagyl to the hospital.:" IDI-HM-ZmafaraBakura *R: We are not responsible for budget we are only responsible for the materials brought to us.' IDI-HM-ZmafaraGaladi*
Funds set aside	*R: There is little amount of money set aside. At the end of every month we sit down with my CVs to have a meeting and correct our mistakes and to give them the little token for their transportations. IDI-HM-ZmafaraYarkfji*
Financial help from an individual in the community	*R: They are trying, there is a (mentions name) each time I confront him with the problem of this hospital, he always renders financial help without hesitation even up to 50,000. IDI-HM-ZmafaraYarkfji*
Lack of funds for transportation	*R: The problems are; if someone lives far away, some people have found themselves in this situation especially from (mentions name of towns) some of them are faced with the challenge of how to bring themselves, the transport because the husband may find himself in a situation where he doesn't have anything to eat, and so cannot bring them all, so that is why some don't come, it is not that they don't want to. (IDI_Father of non-defaulter Jigaawa)* *R: Yes, lack of money is a big challenge because just as I have told you, there is someone who spends six hundred naira upwards just to attend this program, because I cannot forget when I used to come to collect for my son with my family, I know a man who comes from (mentions name of street) he spends on motorcycle transport with his family is nothing less than one thousand naira, now he comes for two weeks and doesn't get, surely when it comes he won't go. (IDI_Father of non-defaulter Jigaawa)* *R: yes there is the difficulty of long distance because some people do pay to transport. (IDI_Father of default; Zamfara)."* *R: It is the problems I told you, when you see her not coming here it the problems of money to come. If you do not have a vehicle, you know the roads how the place is far, how many hours, how many kilometres, if you do not have a vehicle and no transport money, what would you do? Women are being attacked on these roads or robbed, you see, it is a problem. Some do not want the money but to rape them (claps). You see there are problems on these roads, you must find a motorcyclist, and you must take her there. (IDI_Father of default; Zamfara)."*

E.12 Theme: Governance, Guideline, Policy

Sub-theme	Quotes
Need for mechanism for identifying active volunteers	*R2: "They should also take attendance of those of us who come to work and separate us from those who don't. When it is time for payment of allowance during the seminars, they should make us feel the impact of their supervision." FGD9 (Female Community Volunteers)* *R4: "Some don't only come when they know that we are going to get something, like the N1000 at the end of the month. Some don't come unless they know that they are going to get something but we come on a regular basis."* *R5: "We come all the time but when they come they give us exactly the same as those that don't come regularly."* *R6: "We are not saying they shouldn't get anything, we are saying we the regulars should be considered and our share should be increased." FGD20 (Male Community Volunteers)*
Need to conduct activities aimed at improving public perception of CVs	*R1: "It's just that some women thank us for what we are doing and some will insult us."* *R2: "If you tell some about it, they won't even listen to you, they might even insult you, they say things like; we have nothing better to do than to dress up and go around houses. We go back home after afternoon prayers."* *R5: "Some just think we are wasting our time." FGD11 (Female Community Volunteers)* *R4: "You know the problem with the village; they think anyone that is doing this work is suffering so to be honest I have not had anyone that is interested in the job."* *R5: "Some tell us not to come as the work is useless and I told them it is not useless because God knows our intentions." FGD 12 (Female Community Volunteers)* *R2: "The changes we want is to increase or empower us by providing mobility and where necessary allowance. This would shut the mouth of our detractors who will always accuse and make jest of us of involving in a worthless venture. This will add some integrity and respect to our work." FGD17 (Male Community Volunteers)* *P5: "They see us as fools, their children are all well, that is the foolishness, and they say we are all fools, we go house to house, loitering about…." FGD13 (Female Community Volunteers)* *R6: "well, firstly, they admire it, they feel it is work that something would come in afterwards, but as the years roll by, they see that nothing comes in, now they abuse us calling us people who suffer, but firstly, we the CVs were seen as the president in*

	this town (participants laugh), because they felt we were given something, they didn't know there was nothing. They even talk about it that every month we are given one thousand naira, and they say it is useless work, some amongst us even opted out." FGD23 (Male Community Volunteers)
Re-evaluate time-burden for CVs, and reduce time commitment required, possibly through a rotation of duties	*R3: "You know we are about 40, and we used to go all at the same time, but then Ahmed said that 10 people should come for 3 weeks and then another 10 will come for 3 weeks and so on you see that is 4 weeks, that is a good change and nobody will be stressed." FGD 12 (Female Community Volunteers)* *P2: "in our thinking, there is definitely something that makes a CV quit. Firstly, time factor, when you spend the whole day there and sometimes you don't get transport money to go back, that is one, and then even if you get something, you will think of what to buy, up till the time they close you will not get it, and then some have taken it as if they will be given something, they have forgotten it is voluntary and so they face the reality that it is actually voluntary and there is nothing you can do about it until the month ends, and even at that you have to spend one or two weeks before you are given, so this part of what discourages them. But we at the hospital, no one has changed his mind, they are there and we are together doing the work." FGD23 (Male Community Volunteers)*
Contributions of CVs are not institutionalized	*R4: "We also need another thing, we have been working here for a while but there is nothing to identify us as workers here. We should come together; the 40 of us and our leaders and we should all be registered. This is useful in case someday some people come the register can be used as reference to know who and where someone worked at a certain year."* *R5: "Yes ID card. In the future if the program is over and they want to bring it back, if they check the records they can find out the people that participated in the past. From it, it can show that we volunteered and we did it for God's sake. When future applicants come and see all these documents they will be encouraged to join so that they can also leave history like the white man did. They keep the history of the smallest things." FGD19 (Male Community Volunteers)* *R6: "The major problem that we are facing, the whole of the CVs, is that there is nothing that we are in charge of, nothing that we have that if it goes missing it will be from us and if it is fixed, it will also be from us. Like some equipment, when they brought the benches they said it was for the malnutrition program they didn't say that it was for us the CVs and that we should take care of it and where do you want to keep it. We are not in charge of any equipment they only bring them out and give it to us on the day we are going to work."* *R7: "No one among the CVs can go and bring the milk that he is talking about. The person that brings it is not a member of the CVs. We don't know what his job is."* *R6: "Every time we try to tell them about our problems they don't pay attention and they tell us that we are volunteers and so they try and discourage us from telling them our problems." FGD19 (Male Community Volunteers)*
Need to pre-estimate the expected number	*R7: "The changes that will make our job easier as Community Volunteers is to plan on how many people will come each week and to plan for that amount of people, I think if we do that our job will become easier." FGD24 (Male Community Volunteers)*

of people at CMAM clinic and plan accordingly	
Guidelines are provided to work with	*R: it's been a year now since we were trained on this program, and what we were taught since time back is what we are using because we were given guidelines on this wok and we check the text book and see all what it tells us, it is from there we will resolve it." IDI20 (Frontline Health Worker)*

E.13 Theme: Integration

Sub-theme	Quotes
Polio officials enlighten community abut programme	*R6: Yes, it is only [from polio officials we get information about the programme] because we don't have any other persons enlightening us about the programme." FGD3 (Mothers Never Defaulted)*
Immunization given on CMAM days	*R3: The same with the others, when it is time for vaccinations, I bring my children and they get vaccinated. When I first came with my daughter to collect the paste she was vaccinated. FGD7 (Mothers who Defaulted)*
Generally, well integrated with health programmes	*R: No, since from the beginning we have separated each programme not to affect another. Though it is the same Wednesday we also do routine immunization (RI). But those in charge of routine immunization are also on their own desk to give immunization to children and women because it is the only day that we get more children for immunized." IDI10 (Health Manager)* *R: In the merging? It has been very successful because mostly, village hospitals especially situated by the roadside, mostly patients even from the villages are not very frequent, but the reason for this program causes that every week, every time there are patients, firstly we do RI, secondly we do ANC, and which the parents of these children who come, you will find them with pregnancy and so we advise them and then when it is time, they will come for ANC at the hospital, so this has already been merged and it is good."………………………… Yes it is merged since you see, we do this work of malnutrition, and the IYCF, we do it and then RI, we do it, and then ANC and we do outreach, all these are the activities that this hospital does." IDI13 (Health Manager)* *R: Well, I will say it's like this programme is already merged together because nutrition programme (tacoma)is like health programme, and we the health workers that is the training we receive; that's supporting health programmes. So it is something that goes hand-in-hand." IDI18 (Frontline Health Worker)* *R: Honestly, there had being lots of success areas…………….. Firstly, before the coming of the program we use to have very few patients, but with the combining of the programme with other health services we now have an explosion." IDI11 (Health Manager)* *R: the work we do daily that we do, see first of all, that malnutrition program we use that time to pass information on ANC. We tell the women to come for ANC. We tell them if they have the chance they should to go to the hospital. Like last month some coppers from LDG came and sensitized them on the need to go to the hospital, if they want to have the baby, they should go to the hospital. Also, it has helped our immunization. You see if they fill this card, then they will fill immunization part. Sincerely, it helps in the immunization. Because the turn out in the hospital before they started when I came here in 2011. IDI16 (Health Manager)*

	R: Everything is going on well because apart from the milk, drugs are provided also which are distributed free and zinc and ORS are given to us. Through this work, if we see a child losing weight, if it is as a result of purging already we have our ORS and RUTF you will see that the child will regain his or weight." IDI17 (Health Manager) *R: Toh this work doesn't give us any disturbances on our job in the clinic because is not a daily job is a job that when you do it today you don't continue tomorrow but after six days so because of that is not bringing any problem so or hitch to the clinical duties because even days of the programme we do our normal clinical job there are others set aside to attend to patients that are not for the programme he will diagnose the patient make prescription if there are available drugs he will give to them if there are no drugs he will write it and give and you see that doesn't affect the programme or make it stop. IDI22 (Frontline Health Worker)*
Good referral system for other illnesses	*R: Well this hospital tends to have different workers, but for those that come here for nutrition programme (tamowa) and are been discovered or diagnosed to develop other health issues, we normally refer them to the doctor because we have doctor here, and the doctor examines them………… It's like I have explained this question already. We usually refer such a person to the doctor to be examined. We have admission rooms/wards, and also staff that run shifts." IDI18 (Frontline Health Worker)*
Does not want integration because of the work load	*R: We don't want it to be integrated every day because it would be too tedious, there will be too much to do and we are only three, we would not want it to be joined every day." IDI21 (Frontline Health Worker)*
Cannot be well combined – must leave other duties	*R: You know we are staffs here, we have a duty, you see on Monday we are off so that we can do this work and so that there will be progress, even if I have morning duty or other staffs have morning or evening or night, they will take that day off, because they are doing this work, you can't combine the work at the hospital and this, so they will give us off at that time." IDI12 (Health Manager)*

E.14 Theme: Sustainability

Sub-theme	Quotes
Although, programme is highly welcomed people are too poor to pay out-of-pocket for RUTF	*R5: "They can't because they don't have the money to buy it, even if it is N200 per sachet, they can't buy it."* *R4: "Even if it is N50 some will not be able to buy it."* *R5: "So you see they will go anywhere they know they can find assistance for help."* *R7: "In the past they use to go to (mentions name of town) to go and collect it."* *R8: "My husband's other wife, she is not from here she is from (mentions name of town), when my husband married her she came here. When her first child became malnourished she used to go to Niger republic to collect it (malnutrition pack), if she leaves around 6am she reaches about 5pm before she comes back." FGD 12 (Female Community Volunteers)*
Active CVs express commitment	*R3: "We want to reach a stage before three years that there would be no more children coming for treatment."* *R2: "A point when they will be all healthy." FGD11 (Female Community Volunteers)* *R1: "This community volunteer does not have any fixed period of time, it is a volunteering job so anytime you feel you are free and you can come and help out then you can come there is no specific time that has been put in place that when you reach it you can retire." FGD24 (Male Community Volunteers)* *R2: "………………………..Personally, this program is on my mind every day. The only reason we will stop being part of it's when the program itself is terminated." FGD18 (Male Community Volunteers)* *R10: "Whatever worthy purpose you pursue attracts Allah's blessing and once blessed, its impact will be felt everywhere. Leaving this program is not even an option at all……………." FGD18 (Male Community Volunteers)* *R5: "What made them stop. They were told to do it because of God there is no payment. If they cannot cope they should leave now before the journey is far. But we that have been given this training have accepted it and will be here for the rest of our lives……" FGD15 (Female Community Volunteers)* *P3: "because when all of us selected in this unit, all of us are coming………………………….. Truly there is nothing like that, because everyone has committed himself to that work, everyone is mindful of when the say comes so that he helps the community and ensure that children who have that sickness are well. No one has ever enrolled and left, all of us are still in it." FGD21 (Male Community Volunteers)*

Free drugs provided by LGA	*R: Well, in the area of providing this important meal called "Plumpy Nuts" and also in the provision of drugs given as support by the Local Government Area. People come and get all these free of charge, and have hence contributed in the acceptance of the programme." IDI18 (Frontline Health Worker)*
Help from community	*R: There is no money set aside for this programme. There is a shade built by the people of this town in this hospital specially for this programme."*
Opinions	*R3: "Salam. There is no work that we will do without being trained because if we do people will get the impression that we are doing something that we are qualified to do. For example if you go around telling people that free medicine is being given out and the person comes and finds out that it is not true then he will take you as a liar."* *R4: "What (mentions name) just said is true because to be honest if you are not trained on how to do something then there is a very good chance that you are going to make a mistake and people will be of the opinion that you don't know what you are doing." FGD24 (Male Community Volunteers)* *R5: "Truly there is none, there is nothing we weren't trained on, whatever we do, then we were instructed to do it, and whatever it is, we would do it." FGD21 (Male Community Volunteers)*
Covers many issues, including nutrition/health education, screening for SAM, community mobilization, conduct of CMAM clinic activities, counselling about dietary modifications	*R4: "From people like you, they came and trained us on how to do the program. They taught us how to feed children and how to take care of them. They trained us well that we are the ones now training the new comers."* *R6: "The explained to us by showing us how to weight with our hands for the malnutrition program they taught us how to carry the children and how to feed the child. We tell them when they are going to feed them they should wash their children hands and to feed them gently."* *R4: "They gave us cards, they gave us malnutrition program ID cards, they showed us how the unborn child is in his mother's womb, they taught us about giving birth and that to breast feed the child after birth and should not be given water. They taught us all of that and we go around villages educating people about it."* *R2: "They taught us during the training to tell patients to eat good healthy food that will make them grow healthy as it also contributes in given birth to a healthy child and a healthy mother." FGD11 (Female Community Volunteers)* *R3: "They train us on how to know if that the child is malnourished……….. Secondly, They also train us on the approach and how we can see the children, sometimes you will see that his toes are swollen……….. Or the ankles. So they taught us that if you squeeze it and it doesn't push back after 3, 2 or 1minute then we should advice the parents as the child is malnourished."* *R5: "Salam, they also taught us about clean, they taught us that before the parents feed their malnutrition child they should wash their hands and that of their child." FGD20 (Male Community Volunteers)* *P4: "Truly, they taught us many things concerning the (P3 interrupts) they taught us regarding this work of malnutrition because what they taught us that I can say I held unto averagely, they said when we enter a house to check, this work is voluntary, if we feel we can, then we do it and if we feel we cannot, then we can leave, no one*

	will see your fault, there is no payment, it is God who pays a person (person coughs) and I am content and I have taken an oath that I will continue to do the work between man and God. And so they said when we go for checkups, first how we can know a child has malnutrition is; we will notice that the child's head is red and his face is swelling, if the swelling is much, it will extend to his legs, when you want to examine him, you squeeze his leg like with your hand this (demonstrates), if your hand goes in and doesn't come back, then that is a sign that he has malnutrition, then you can take him to the hospital, when you bring him to the hospital and he is examined, then you will continue to give him the milk and he will be well. Then we continue to sensitize the mothers of the children to please look after the children and give them good food, even if they discharge your child, you can make kunu (cereal) and give him, you can put soy beans or groundnut, you combine it and grind it together and give the child and then try to clean the environment, lack of cleanliness can cause sickness for the child like this. That is what I remember (laughs)." FGD13 (Female Community Volunteers)
Regular training and retraining being done	*R: Well, we are been retrained from time to time. For all of us that have been trained before, we are been re-educated or retrained on the work again. IDI18 (Frontline Health Worker)* *R: we are given, there is no problem truly, and they train us regularly………….. well in a year, they have given us training five times now" IDI21 (Frontline Health Worker)* *R2: "We undergo training always, before giving out milk we are always reminded on what to do." FGD22 (Male Community Volunteers)* *R: Honestly time to time we are being called upon, sometimes in the local government level other times at the state level especially it is hard to see that in a month that we are not called even if its once a month; sometimes once or twice in a month sometimes we do it in our local government in that the state team will come to the local government level and enlighten us on how the work is done other times they call us to the state and we will be kept in a hotel and we will be having seminars on the improvement, what is the way forward and what are the challenges of it we will also have enlightening the one that you don't know you will get to know about the programme. IDI22 (Frontline Health Worker)*
Training not regular	*R: it is up to one year, one and a half years in fact since from this OPD, we were only two that went for this training." IDI12 (Health Manager)* *R: it's been a year now since we were trained on this program, and what we were taught since time back is what we are using because we were given guidelines on this wok and we check the text book and see all what it tells us, it is from there we will resolve it.*
Lack of training for newly employed HWs	*R: Well such challenges exist. Staffs are not enough, and those that have been trained before are still the ones on ground as new ones have not been trained." IDI18 (Frontline Health Worker)*
Trained on everything in the job	*R1: "Well we are using everything they taught us." FGD11 (Female Community Volunteers)*

	R2: "There is no work that they tell us to do without training us for it." FGD 12 (Female Community Volunteers) *R: No. we can perform/do everything we are been taught…………………… Well I don't think there is anything that we have not been trained on and yet we are expected to do or implement. Sincerely, everything we do is what we have been trained on or taught to do." IDI18 (Frontline Health Worker)* *P3: "No [there isn't any changes we want to see in the area of training], we are very pleased with it, it is okay" FGD13 (Female Community Volunteers)* *R9: "No, we were trained for all the work we do." FGD16 (Female Community Volunteers)*
Training not carried out on everything	*R: Yes, I wouldn't say there isn't but everything that is done, they have touched little on it except what wasn't implemented in our presence, but if it is on CMAM alone, truly they have taught us on it." IDI20 (Frontline Health Worker)* *R: Yes, except something new, you know sometimes there are changes or additional forms to fill which you don't know about but because it is in that program of yours, even if you don't know they will give you, filling the form itself is difficult, or understanding it and our leaders who we will ask on time.* *R1: "I once did something of such [play a role without prior training]. I came across a woman who gave birth but the breast milk was not flowing. The umbilical cord was cut and everything was fine except for the absence of breast milk. Some were saying the breast may remain dry for a week or three weeks but I made the woman sit down using the information I got from the radio. So I continue to do like this to her and after a while breast milk started coming. So I asked them to wash the breast and they did and I asked them to feed the infant but some said no, no until the breast has been treated and I said that God has already treated it. The infant was given the breast milk. Even yesterday the mother brought grains to me in appreciation. The breast is full and even pouring. You see this skill is from God not from us. You see I just tried (laughter/ cough in background)." FGD15 (Female Community Volunteers)*
Training was conducted before the programme commenced	*R: Before the programme came on board, there were some people who took the responsibility of meeting this need. They came here to mobilize us as to how this program will run. In our capacity as health facility staff, they organized workshops and training sessions on how the program will be actualized. With the coming of the programme, they kept enlightening us on how best to improve on the programme. Here in the hospital there are cards we open for every child brought into this facility, to enable us measure the weight and the strength of the hand to determine a child's eligibility to be admitted into the programme. We measure the strength of the hand using (…aaah..) a tip called 'Mowax' (which is ………… in Hausa, or let me say hmmm Upper Arm Circumference in English). IDI11 (Health Manager)o*

	R: We always train them in batches monthly, and even before we started this work we were trained but it has been long that we were called for training. IDI15 (Health Manager)
All staff have been trained	*R: they are all trained. First of all, they started with 4 staff. 3 staff. Two from here, one from the neighbouring health facility. They later took three people. All of them we work with have been trained." IDI16 (Health Manager)*
Carried out only by Save the Children	*R: Save the children is the only organization I know because they are only organization that gives us the training." IDI17 (Health Manager)*