EVALUATION REPORT

EVALUATION OF COMMUNITY MANAGEMENT OF ACUTE MALNUTRITION (CMAM)

PAKISTAN COUNTRY CASE STUDY

EVALUATION OFFICE
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Evaluation of Community Management of Acute Malnutrition (CMAM): Pakistan Country Case Study.

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This evaluation case study report for Pakistan was commissioned by the UNICEF Evaluation Office and the Pakistan Country Office and constitutes a part of a global evaluation of *Community Management of Acute Malnutrition (CMAM)* that examines UNICEF's CMAM programme performance in five countries. The Pakistan case study report was prepared by independent consultants Sheila Reed, Eric Camille Kouam, Parvez Paracha, Zia-Ud Din, Niamat Ullah, Adil Saeed, and Yasmin Asif.

Krishna Belbase, Senior Evaluation Officer, managed the overall evaluation process in close collaboration with the Pakistan Country Office and Nutrition Section, Programme Division (PD), New York (NY). In the Pakistan Country Office, Sarita Neupane, Shahid Mahbub Awan, and Silvia Kaufmann were the lead counterparts and Erin Boyd was the main counterpart in the Nutrition Section, PD, NY.

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ACKNOWLEDGEMENTS

This report was made possible thanks to the significant time, effort and contributions of many people, both inside and outside UNICEF. The evaluation team gratefully acknowledges the support of the UNICEF Country Office in Pakistan including sharing of documents and data in support of the evaluation. The managerial and technical support provided by Shahid Mahbub Awan and Silvia Kaufman was timely and valuable as this evaluation would not have been possible without their contributions. The team would like to thank Sarita Neupane, Ruksana Shereen, Teshome Fekele, Abdul Jamil (Peshawar Office) and Aien Khan Afridi (Peshawar Office) for their technical and managerial contributions to the evaluation. Special recognition goes to the national evaluation reference group for their substantive advice and for their contributions in the triangulation of evaluation findings and conclusions.

The team wishes to note its appreciation of the many people who made time to meet with the team members during the course of the evaluation including central and local government officials, health workers and other professionals, and the many parents, children and community members who participated in the interviews, meetings and focus group discussions conducted as part of the evaluation.

We also thank staff from various UN agencies, other international organizations and local NGO staff, too numerous to acknowledge individually, who have contributed their time, information and thoughts to this evaluation.

At EO, New York, Krishna Belbase provided the overall leadership and guidance in managing the evaluation and Erin Boyd in Nutrition Section provided much needed CMAM related technical support during the evaluation process. In addition, we thank Sheila Reiss for her help in editing of the report.

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ACRONYMS

AWG	Average Weight Gain
CCCs	UNICEF's Core Commitments to Children in Humanitarian Action
CERF	Central Emergency Response Fund
CMAM	Community Management of Acute Malnutrition
CPC	Child Protection Centre
ECD	Early Childhood Development
EPR	Early Recovery Plan
ERWG	Early Recovery Working Group
FANS	Flood Affected Nutrition Surveys
GAM	Global Acute Malnutrition
GBV	Gender Based Violence
IASC	Inter-Agency Standing Committee
IDPs	Internally Displaced Persons
IYCF	Infant and Young Child Feeding
LHV	Lady Health Visitors
LHWs	Lady Health Workers
LOS	Length of Stay
MAM	Moderate Acute Malnutrition
MDGs	Millennium Development Goals
MI	Micronutrient Initiative
MICS	Multiple Indicator Cluster Surveys
MNHC	Maternal and New-born Health Centre
MoH	Ministry of Health
NDMA	National Disaster Management Agency
NGO	Non-Governmental Organization
NSC	Nutrition Support Committees
OCHA	UN Office for the Coordination of Humanitarian Affairs
OTP	Outpatient Treatment Programme
PAIMAN	Pakistan Initiative for Mothers and New-borns
PATS	Pakistan Approach to Total Sanitation
PCA	Project Cooperation Agreement
PFRERRP	Pakistan Flood Relief and Early Recovery Response Plan
PRIFER	Pakistan Response Initial Floods Emergency Response Plan
PINS	Pakistan Integrated Nutrition Strategy
PLHIV	People Living with HIV
PLW	Pregnant and Lactating Women
PPTCT	Prevention of Parent to Child Transmission (of HIV)
SAM	Severe Acute Malnutrition
SFP	Supplementary Feeding Programme
SM	Social Mobilizers
SSFA	Small Scale Funding Agreement
TWG	Thematic Working Group
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WFP	World Food Programme
WHO	World Health Organization

EXECUTIVE SUMMARY

The Government of Pakistan (GoP) and the Department of Health (DoH) initiated the Community Management of Acute Malnutrition (CMAM) programme in Khyber Pakhtunkhwa (KP) in 2008. CMAM was scaled up following the flood disaster of July 2010 to address malnutrition and promote optimal child feeding practices. It was implemented in collaboration with UNICEF, WHO and WFP, and through implementing partners (IPs) and covered northern, central and southern districts of KP. Other child nutrition programmes include Infant and Young Child Feeding (IYCF) and prevention and control of micronutrient deficiencies. CMAM is also implemented in Sindh and Punjab provinces.

Wasting, a measure of acute malnutrition, has increased over the last decade in Pakistan; it was estimated at 11.8% in 2001, 13.1% in 2006, and 16.8% in 2011. UNICEF undertook this evaluation to assess CMAM programme performance and gather lessons to inform scaling-up of CMAM. The CMAM evaluation in Nepal is part of a global evaluation commissioned by UNICEF, which covers five country case studies and a synthesis report. The four CMAM components in Pakistan are: 1) Community outreach (screening, referral, follow-up, and community mobilization); 2) Outpatient treatment (OTPs) for severe acute malnutrition (SAM) without complications and home-based administration of ready to use therapeutic food (RUTF); 3) Inpatient treatment in stabilization centres (SCs); and, (4) Management of moderate acute malnutrition (MAM) through a supplementary feeding programme (SFP).

The criteria of relevance and appropriateness, effectiveness and coverage, efficiency, and sustainability were applied to CMAM components and cross cutting issues. To accommodate time and budgetary limits, data were obtained from secondary sources, health system databases, visits to sample CMAM sites and interviews with stakeholders. Quantitative data on beneficiaries were analysed to determine whether programme targets had been met. Qualitative data also supported the analysis. Programme data was analysed for sample districts from December 2010 to November 2011.

Key Findings and Conclusions

Relevance and Appropriateness

The evaluation has determined that CMAM is a relevant and effective approach in KP for addressing SAM and that effectiveness, efficiency and sustainability of the programme can be improved through the recommendations below. The implementation of CMAM in KP has been of good quality, resulting in a high rate of cure for children admitted with SAM. While the approach is evolving toward stronger integration into the national health system, CMAM's potential is reduced by lack of government priority for nutrition and absence of a comprehensive national nutrition policy. Progress has been made in developing a Provincial Integrated Nutrition Strategy, which would be aligned to the Pakistan Integrated Nutrition Strategy (PINS) in KP. The PINS provides a strategic framework but does not have any funding attached to it.

Global Guidance and National Needs. Stronger adherence to global guidance is required for community assessment, results based planning and monitoring. There is currently no effective framework to guide integration of CMAM with the national health system. The national CMAM guidelines focus on treatment protocols and require expansion to discuss cultural adaptation, gender and equity, IYCF, and programme performance monitoring and to clarify screening, admissions and referral procedures.

UNICEF's Technical and Organizational Support. UNICEF effectively provided surge capacity to expand CMAM, promoting success in meeting most Sphere standards for children admitted with SAM, UNICEF's support resulted in establishment of a Nutrition Information System (NIS) and strengthening of

the nutrition cluster nationally and provincially. However, for scaling up, UNICEF needs greater headquarters and regional support and more staff members with nutrition expertise to promote nutrition policy and provide consistent guidance to the GoP and IPs. Longer term resource allocation to CMAM is required to retain the existing human resources required for strengthening the quality of implementation, the integration and to ensure an adequate response where and when required.

Effectiveness, Coverage and Quality of Services

The partnerships among communities, the DoH, UNICEF, WFP, WHO and IPs effectively supported CMAM services, reaching 70,000 moderately malnourished children and 14,000 severely malnourished children in select areas of KP. Treatment coverage for children with SAM cannot be determined in KP due to lack of coverage surveys.

Community Outreach. Initial challenges were faced in gaining community acceptance of CMAM due to the traditional seclusion of women in their homes and lack of trust in the programme. More advance sensitization is important to inform communities, particularly leaders, about the objectives of CMAM services and to prepare for discreet home-based screening. The Social Mobilizers (SM) through Nutrition Support Committees (NSCs) were instrumental in paving the way for Community Outreach Workers (COWs) to access households. Challenges include improving skills of community workers in using MUAC, strengthening follow-up home visits of non-responders and defaults and promoting sustainability of the NSCs. Effective follow-up of admitted children in Swat and Lower Dir can be attributed to higher incentives for COWs, well qualified IP nutrition staff, the formation of mothers' groups and involving men in the programme. Data on screening and admissions are not structured by gender, groups, areas, and relative to population changes making analysis of coverage and outcomes difficult.

Outpatient Treatment Programmes (OTPs). Most admissions were children of 6-23 months of age highlighting vulnerability as complementary foods are introduced. The OTPs achieved a 91.5% cure rate for SAM cases and 7.5% default rate. The SAM treatment met Sphere standards for cured, default, and death rates, however, standards for weight gain and length of stay were not achieved in all sites. A number of CMAM sites in health facilities require upgrading to ensure adequate and well ventilated spaces and designation of play areas. Procedures for admissions, discharges and referrals to SCs are not sufficiently standardized particularly for use of anthropometric measurements and for timely medical examinations to identify complications.

Supplementary Feeding Programme (SFP). MAM management performance is effectively tracked through joint IP/WFP data collection. A 95% cure rate was achieved among registered children; the default rate was 4.2%. Sphere standards were met for cured, default and death rates, however, none of the districts achieved the average weight gain standard and some districts did not achieve the length of stay standard.

Stabilization Centres (SCs) for Inpatient Care. The SCs established in the paediatric wards of government-run hospitals were well managed but coordination was poor between OTP and SC both for referral to the SCs and discharge back to OTPs. The SCs require immediate support to structure programme data recording which is currently insufficient for analysis.

Ready to Use Therapeutic Food (RUTF), Acceptability and Supply. The RUTF imported by UNICEF is well accepted by children but efficient usage was hampered by lack of compliance to prescribed intake, sharing of products with siblings, sale of the products, and supply shortages in some centres; monitoring is inadequate to address these problems. There is limited national production of supplementary products but little progress has been made on promoting local production of RUTF.

Information and Monitoring. Nutrition cluster support, coaching and dedicated information managers in IPs facilitate NIS effectiveness and on-site monitoring has improved. However, programme data are poorly tracked in some sites; relapse data need to be collected. To more efficiently steer the programme, more emphasis must be placed on ensuring data quality and consistently analysing performance indicators as well as undertaking regular surveys, reviews and evaluations.

Cross Cutting Issues

Management and Coordination. The scale-up of CMAM was facilitated by pre-existing relationships among government, UNICEF, WHO, WFP and IPs, active case finding, formation of Nutrition Support Committees, and established coordination mechanisms. Stronger earlier joint assessments may have enhanced implementation efficiency through the Pakistan Humanitarian Response (2010); the Flood Affected Nutrition Survey (FANS) was not conducted until four months after the disaster. Joint planning for supporting the national nutrition programme is not strong enough between the MoH, WFP, WHO, IPs and UNICEF. Stronger joint planning is also needed among provincial partners (UN, IPs and DoH) for setting and revising realistic programme targets as the situation evolves.

Gender Equality and Equity. Multi-agency emergency response strategies effectively identified potential gender issues but no community assessments were conducted to ascertain programmatic means to address these issues. The national guidelines and assessments should more effectively guide staff to ensure coverage of groups with higher prevalence, such as girls and children aged 6-11 months. Partners are increasing their efforts to reach HIV/AIDS positive people and strengthen capacity development of women community workers and staff. CMAM integration into the health delivery system and greater involvement of civil society organizations and the private sector is important to reach malnourished children living in remote, crisis-affected and food insecure areas.

Integration into the National Health System. CMAM integration in KP is minimal to partial; IPs are responsible for staffing, monitoring and capacity development at higher costs and less sustainability. Stronger GoP roles are needed in accountability, financing, and coordination. The time for integration planning is optimal given the strengthening of provincial authority. Progress has been made in establishing MOUs and partnerships among MoH and other relevant ministries UN and IPs, and development of a nutrition response plan.

Capacity Development. The Nutrition Cluster effectively planned for intensive capacity development of 800 health care providers and IP staff in KP with follow-up refresher training in 2011. Greater capacity development was needed for protocols and IYCF, and more in-depth training for inexperienced staff. Due to diverse qualifications and experience of staff providing CMAM services, their capacity needs have to be assessed and relevant training provided, aiming for consistency in service quality across districts.

Cost Analysis

The GoP makes a significant contribution to CMAM's capital costs through provision of health facilities; support for heath staff and utilities comprises an estimated 7% of recurrent costs. The largest proportion (33%) of the externally funded recurrent costs is devoted to RUSF and RUTF. The costs per beneficiary differed by district and IP; the average costs were SFP ($21); OTP ($145); and SC ($230). Lower costs were associated with local NGO implementation due to lower cost of human resources.

Sustainability and Scaling Up

The major issues for future scale-up are planning, capacity, and funding. Mapping and prioritization of target areas have not yet been fully undertaken. Joint planning is still weak for building institutional relationships to define nutrition policies and standards and indicators for integration, and set out tangible means to build DoH capacity. It may only be possible to achieve broader coverage through involvement

of more local NGOs, private health practitioners, and other civil society actors. The majority of stakeholders advocated for overcoming barriers to expanding national production of supplementary products and strongly promoting RUTF production. There is a funding gap between emergency and longer term programs and a pooled common fund may help provide more consistent funding. Funds need to be secured in advance for coverage surveys, reviews and evaluations. Not enough resources are focused on prevention through IYCF counselling and promoting healthy local foods.

Key Recommendations

The recommendations are closely tied to the findings and conclusions above. The GoP should take the lead in all except Recommendation 3, where UNICEF takes the lead.

Policy, Strategy, Guidelines

1. Advocate for and support joint planning for development of a national nutrition and provincial strategy which outlines the strategic priorities, assigns nutrition authority and coordination mechanisms, sets out capacity needs, and makes budget commitments for nutrition interventions.[1] A focus on multisectoral and integrated longer term approaches is seriously required.

2. Strengthen and update national CMAM guidelines to include detailed protocols for referrals and admissions to SCs, more on IYCF, intersectoral coordination, and guidance on addressing cultural, gender and equity issues and monitoring programme performance.

3. Provide technical support to the CO to design CMAM expansion. Strengthen monitoring and advocacy at the national and provincial levels by ensuring dedicated staff with nutrition expertise for managing CMAM.

Planning and Monitoring

4. Strengthen the NIS oversight to ensure reliable and consistent collection of gender disaggregated programme data and training of staff who are responsible for data recording.

Programme Implementation and Quality Assurance

5. Conduct coverage surveys in KP and track coverage as part of programme performance analysis.

6. Given the scale of MAM in Pakistan, seek alternative approaches to ready to use supplementary products, through researching local recipes, and strengthen IYCF through increasing numbers of COWs and Lady Health Workers.

Capacity Development

7. Conduct a training needs assessment for each CMAM site and provide appropriate levels of training according to staff experience and knowledge. Evaluate training periodically.

Sustainability and Scaling Up

8. Jointly establish indicators for progressive integration of CMAM into the national health system with the government taking an increasing role in accountability, monitoring, and implementation. IPs should develop results-based plans for contributing to DoH capacity development.

9. Expand in-country production of supplementary foods and strongly promote the development of RUTF production, for example, by providing technical assistance to food processing companies.[2]

[1] Also a recommendation from Nutrition Cluster Evaluation, Pakistan Flood Response, September 2011 and the PINS.
[2] Also a PINS recommendation

10. Advocate at high levels to secure funding commitments for scaling up with a view to supporting permanent integration of CMAM and a national nutrition strategy with coordinated projects and programmes. Seek alternatives for fund management such as a pooled fund that reduces overhead costs.

1. INTRODUCTION

Severe acute malnutrition (SAM) is estimated to affect about 20 million children under 5 years of age globally; in Pakistan about 1 million children are affected with SAM. With increased frequency and intensity of natural disasters as well as economic uncertainties, these numbers will likely increase. UNICEF, in cooperation with the government and other partners such as World Food Programme (WFP), World Health Organization (WHO) and NGOs, has made significant investments in more than 55 countries to scale up treatment of acutely malnourished children though Community-based Management of Acute Malnutrition (CMAM).

The major impetus for the implementation of CMAM was the publication in March 2007 of the WHO/WFP/SCN/UNICEF Joint Statement on CMAM, which recognized that "*large numbers of children with severe acute malnutrition can be treated in their communities without being admitted to a health facility or a therapeutic feeding centre".* The CMAM approach offers advantages over the traditional treatment of SAM in the hospital by providing safe and nutritious ready to use therapeutic food administered by caretakers at home to promote early recovery and prevent life-threatening medical complications. CMAM involves active participation of the community to diagnose moderately and severely malnourished children at a very early stage using the simplified WHO criteria by measuring middle upper arm circumference (MUAC) and assessing oedema. The CMAM approach also focuses on sustainability through integration into the existing health infrastructure and provision mechanisms.

To consolidate the achievements made and to further enhance, scale-up and expand CMAM services, an independent evaluation was undertaken to generated concrete evidence on how well the global and country level strategies have worked, on CMAM's acceptance and ownership in various contexts, and on the appropriateness of investments, for example, in capacity development and supply components. The global evaluation includes a comprehensive assessment of CMAM in five countries (Nepal, Pakistan, Ethiopia, Chad, and Kenya) and drawn lessons for use by national governments, UN agencies, NGOs, and other stakeholders.

In Pakistan, recent drought, floods and armed conflict have increased the vulnerability of children to malnutrition. About half of under-five mortality is associated with acute malnutrition. The Pakistan National Nutrition Survey of 2011 reported serious levels of global acute malnutrition (15.1%) and stunting (43%). CMAM was started in October 2008 in Khyber Pakhtunkhwa (KP) serving flood affected areas and was scaled up through 2009-2011 to include 14 central, southern and northern districts of KP and one agency of the Federally Administered Tribal Areas (FATA).

The UNICEF Pakistan Country Office took an initiative by supporting this evaluation of the most mature CMAM programme in KP, to synthesize lessons and recommendations from CMAM pilot districts for use by the government, UN agencies, donors, and NGOs. The Pakistan country case study is a timely initiative as no other evaluations have taken place on CMAM in the country. The evaluation will assist in advocating for resources for strengthening existing programmes and expanding CMAM to the most affected areas of the country. It will also be a part of the global consolidated CMAM evaluation report, which is expected to enhance the global CMAM knowledge and evidence base for sharing with other countries, as well as serve as input for advocacy and policy decisions on its future directions.

The findings and recommendations from CMAM monitoring exercises and evaluations in Pakistan have been woven into the discussions in this report with appropriate referencing. The following reports were consulted.

- Pakistan Nutrition Cluster briefs
- Reports from UNICEF Surge support personnel
- *Inter-Agency Real Time Evaluation of the Humanitarian Response to Pakistan's 2010 Floods crisis*, March 2011
- Evaluation of Concern Pakistan's Emergency Response to the 2010 Floods
- *Children in Pakistan - One Year After the Floods (July 2011): a summary of UNICEF's flood response.*
- *Nutrition Cluster Evaluation, Pakistan Flood Response*, September 2011

This report is divided into seven chapters:

1. Introduction and Background
2. The CMAM Programme in Pakistan
3. Evaluation Scope and Methodology
4. Programme Effectiveness and Quality of Services
5. Cross-cutting Issues
6. Cost Efficiency, Sustainability and Scale Up
7. Conclusions and Recommendations

1.1 Country Background and Health System in Pakistan

Pakistan is the sixth most populous country in the world with about 185 million people. Pakistan consists of four provinces, Punjab, Sindh, Khyber Pakhtunkhwa and Baluchistan, a federal capital territory i.e. Islamabad, a group of Federally-Administered Tribal Areas (FATA) and a group of five Frontier Regions known as the Provincially Administered Tribal Areas (PATA). Agriculture accounts for 23% of GDP and engages about 45% of the workforce.[3] The per capita income is US $1020 and adult literacy rate is 54%.[4] Pakistan has been ranked 145th out of 189 countries in the Human Development Index (HDI); the HDI of South Asia as a region increased from 0.356 in 1980 to 0.548 today, placing Pakistan below the regional average for achievements in health, education and income.[5]

[3] http://www.finance.gov.pk/survey_1011.html
[4] The State of The World's Children 2011 – UNICEF, New York
[5] Human Development Report, 2011, UNDP, New York and Pakistan Tribune, "Pakistan Ranks 145 on UNDP's Human Development Index" 3 November 2011.

Figure 1.1. Map of Pakistan.

Pakistan has experienced severe climatic changes over the past 50 years. The drought of 1998-2002, the worst in 50 years, is a factor in poor economic growth performance. Recent surges in food prices adversely affected the household food security of about 45 million people, further exacerbated by the floods of 2008 and 2010, on-going military interventions, and frequent power failures. These circumstances have had a negative impact on the health and nutritional status of people and particularly women and children.[6] Floods in 2011 have severely affected Pakistan again particularly in the Sindh province.

Khyber Pakhtunkhwa (KP)

Khyber Pakhtunkhwa (KP) with an estimated population of over 20 million is the second most underdeveloped province after Baluchistan. Twenty-three out of the 24 districts of the province have been declared as food insecure by the WFP. Over 60% of the population depends on agriculture; 94% of the farmers each has less than 12.5 acres of land and 44% of the rural population lives below the poverty line.[7]

Numerous natural disasters have affected KP including the 2005 Kashmir earthquake resulting in 29,360 deaths and flooding in 2008 around Peshawar which displaced 200,000 people. In 2010, a flash flood devastated the Malakand Agency down to the southern parts of the country affecting over 3 million people. Military operations in KP and adjoining tribal areas since 2008 led to an exodus of about 2.3 million people, one of the largest displacement crises in recent times.[8] In 2010, more people were displaced due to continued military operations in FATA.

[6] Five Year Food Security Plan, Ministry of Agriculture, Govt. of Pakistan, Islamabad
[7] www.khyberpakhtunkhwa.gov.pk/agriculture/agri/ag
[8] UN-Revison. Humanitarian Response Plan. Version 1.2, February 2009.

Figure 1.2. District Map of Pakistan's Provincially and Federally Administered Tibal Areas.

1.2 Health Delivery System

In Pakistan, health services are delivered by both public and private sectors. It is estimated that the private sector provides services to over 50% of the population. People from lower socio-economic groups rely mainly on the public health care system where free medical services and medicines are supplied, although not always reliably. The health care system is plagued by weakly integrated and implemented planning and monitoring. Pakistan falls below neighbouring countries in all health indicators and has the lowest level of allocation of the national budget to health. (See Table 1 below.) The government bears one quarter of the average per capita spending on health in the public sector (US$14-16).[9]

The public health care delivery system is managed through provincial governments and consists of the following components: (i) outreach and community-based services focused on immunization, malaria control, maternal and child health and family planning through Lady Health Workers[10]; (ii) primary care services at union council/village level through Basic Health Units (BHU) and Rural Health Centres (RHC) in the villages; (iii) secondary health care services through the tehsil and district headquarters hospitals; and (iv) tertiary care and teaching hospitals at district level.

[9] Pakistan Council for Science and Technology, Report of the National Committee on Health Sciences Development, 2006

[10] Lady Health Visitors have two years formal diploma and training in nursing and gynaecological/paediatrics and are generally appointed in MCH centres to look after pregnant, lactating women and young infants and children. LHWs may or may not have secondary school certificate and also don't have any formal certificate or diploma in health and nutrition. LHW have been assigned a number of outreach activities at periphery level that covers both health and nutrition aspects i.e., promotion of hygiene sanitation, IYCF, tuberculosis, pregnancy and lactation related counselling etc.

Table 1.1: Health Indicators of Pakistan in Comparison to Neighbouring Countries*

Countries	PGR	FR	MMR	IM/1000 live births	CM/1000 live births	GNI US$	Health Allocation as % of GNP
Pakistan	2.1	3.9	280	87	71	1020	0.5
India	1.7	2.7	250	66	50	1170	1.2
Sri Lanka	0.9	2.3	39	13	15	1990	1.6
Iran	1.3	1.8	25	31	26	4530	3.1
China	0.8	1.8	34	19	17	3620	2.0
Vietnam	1.4	2.0	75	20	24	1010	---

PGR=Population growth rate; FR=Fertility rate; MMR=Maternal Mortality Ratio; IM= Infant Mortality; CM=Child Mortality; GNI=Gross National Income

* The State of the World's Children 2011, UNICEF, New York.

*The Economic Survey of Pakistan 2010-11, Planning Commission, Islamabad

Pakistan falls amongst the countries with the highest prevalence of communicable and non-communicable diseases and highest mortality in women and children. Acute respiratory infections and diarrhoea remain the leading causes of morbidity and mortality among children under five years that account for over 400,000 deaths annually in children and 50% of these deaths are attributed to malnutrition.[11,12] Chronic diseases such as diabetes, cardiovascular diseases, hypertension, cancer, arthritis and others have also strained the health care system and are major causes of disabilities and premature deaths.

Three of the eight Millennium Development Goals (MDGs) i.e., reduce child mortality, improve maternal health and combat HIV/AIDs, malaria and other diseases fall directly under the public health domain while good health is pre-requisite to achieve the remaining MDGs. The MDGs have been incorporated into the Government of Pakistan's Health Policy and macroeconomic frameworks, the Medium Term Development Framework (MTDF), and the Poverty Reduction Strategy Paper (PRSP).

1.3 Nutrition Policy and Programmes

In Pakistan, nutrition is not a national priority and has not been fully integrated into the national health system. Policy makers require a stronger awareness of the impact of nutrition on health and the need to devote sustained support. There is no nutrition policy either at the Federal or Provincial level to deal with malnutrition in emergency and non-emergency situations and no high level nutrition authority. A Nutrition Section in the Planning and Development Division of the MoH has been created to integrate the multi-disciplinary programs of nutrition into planning, and is also responsible for coordination, monitoring and evaluating the different nutrition programs. The Federal Nutrition Syndicate (a high level inter-ministerial body) compromising representatives from line ministries, NGO's and other international agencies has also

[11] http://tribune.com.pk/story/131565/one-child-dies-every-minute-in-pakistan-report/

[12] Pakistan Council for Science and Technology, Report of the National Committee on Health Sciences Development, 2006

been created to provide overall planning, policy guidance and inter-agency and inter-provincial collaboration, however these entities are not well coordinated.[13]

The Pakistan Integrated Nutrition Strategy (PINS), a multi-sectoral strategy has been developed in 2011 to build on the initial emergency response and phase over into longer term development support prioritising more sustainable solutions and addressing root causes. It has been developed at central and provincial levels yet transferring the strategic approach into practice requires the transfer into provincial strategies and will need substantial investment, clarity amongst the roles of different partners both national and international, as well as appropriate and sustained leadership implementation plans and funding.[14] The following programmatic inefficiencies affect the nutrition outcomes.

- There are no designated nutrition departments at Federal or Provincial levels. At the Federal level, the Planning Commission and the Ministry of Health each house a nutrition cell.
- There is a lack of nutrition experts at Department of Health (DoH) level, rather, nutrition is frequently designated to the Deputy Director of Public Health or Deputy Director of Reproductive Health (DDRH), who are generally medical doctors with little or no nutrition training.
- There are hardly any academic institutions providing specified courses, graduate or non-graduate, in nutrition. Its integration in medical science is weak and treatment centred.
- Nutrition goals are not well integrated with agriculture, education and other relevant programmes.
- Nutrition programmes and projects in the provinces are essentially run independently by different actors. For example, donors determine which activities they wish to fund such as technical assistance by implementing partners or through the Department of Health in capacity building, advocacy, IEC and other relevant activities.
- There is no provincial and district level nutrition information management system.

Inadequate government ownership and funding and a weak nutrition structure have created a donor dependent nutrition sector which is largely unsustainable. Despite improvements in the per capita income over the years, there has been no significant improvement in the nutritional status of children as revealed by various national surveys.[15,16]

Table 1.2: Prevalence of Malnutrition in Children Below Five Years of Age at Different Time Intervals

Source	Nutrition Survey of West Pakistan	Micronutrient Survey	National Nutrition Survey	National Health Survey	National Nutrition Survey	National Nutrition Survey
Year	1965	1977	1985-7	1990-4	2001 -2	2010-2011
Underweight	43%	53.3%	47.9%	40.1%	38%	31.2%
Stunted	49%	43.3%	41.8%	36.3%	36.8%	43%
Wasted	11%	8.6%	10.8%	11.8%	13.1%	15.1%

The 2011 Pakistan National Nutrition Survey (NNS) indicated that malnutrition rates are unacceptably high and around 57% of the 30,000 households surveyed are facing food insecurity. The high levels of stunting and wasting point to poverty and chronic food insecurity. The survey found major differences in

[13] Nutrition Cluster Evaluation, Pakistan Flood Response, September 2011, page 12
[14] Ibid, page 12
[15] Pakistan Council for Science and Technology, Report of the National Committee on Health Sciences Development, 2006
[16] NNS (2010-2011) Ministry of Health, Islamabad

chronic malnutrition between provinces, with Sindh, Balochistan and FATA having the highest prevalence.

Even though Pakistan has achieved high coverage for some nutrition interventions such as Vitamin A supplementation and salt iodization, huge gaps exist in terms of coverage of essential health and nutrition services and the country lags behind its neighbours in many nutrition indicators. Given the NNS findings, it is unlikely that significantly more progress is possible toward the 2015 MDG4 targets for Infant Mortality Rate (IMR) at 33 and the under-five mortality rate (U5MR) at 43 deaths per 1,000 births; the current U5MR of 71 is likely to only marginally improve by 2015.[17] On the other hand, the goals for reduction of child diarrhoea and universal coverage by Lady Health Workers (LHW), who play a major role in improving health indicators, are likely to be achieved.[18]

"*Health experts noted that the increasing rate of chronic and acute malnutrition in the country is primarily due to poverty, higher illiteracy rate among mothers and the government's lack of commitment towards ensuring food security to each and every citizen. They also attributed it to the inherent problems in infant feeding practices and access to "right" foods".*[19]

1.4 Health and Nutrition in Khyber Pakhtunkhwa

Khyber Pakhtunkhwa (KP) has an extensive basic health infrastructure, both private and public. The Department of Health (DoH) with the federally funded health programmes provides medical services through a network of District Hospitals, Tehsil Headquarter Hospitals, Rural Health Centres, Basic Health Units, Civil Dispensaries, Maternal and Child Health Centres and through outreach workers. There are 127 hospitals at district and Tehsil levels, 81 Rural Health Centres, 953 Basic Health Units, 352 Civil Dispensaries, and 56 Maternal and Child Health Centres.[20,21]

The DoH faces challenges of equity, efficiency, effectiveness and lack of commitment besides having meagre budgetary allocations. The province has made progress and is ahead of other provinces by passing a legislation of fortifying salt with iodine and conducting a first ever comprehensive micronutrient survey of NWFP which enabled the government to embark upon vitamin A supplementation for children under five. However, more efforts are needed to improve the nutritional indicators of the province.

The Multiple Indicators Clusters Survey (2008) conducted in KP after nutrition interventions were underway revealed an IMR of 76 and U5MR of 100.[22] The Flood Affected Nutrition Survey (FANS, 2010) also conducted following four months of nutrition interventions in flood affected districts of KP showed the prevalence of acute malnutrition to be 7.3% and severe acute malnutrition of 1%. (According to international standards, it was below the "serious" cut-off point of 10%.) Chronic malnutrition (47.8%) was a matter of concern, especially in severely food insecure districts of Upper and Lower Dir, Kohistan, Malakand, Buner, D.I.Khan and Tank.

1.5 Partners in Developing the National Health System

Due to the small proportion of national budgetary allocation to health care (0.5% of the GDP) health programmes are implemented with the financial, technical and material support of the development

[17] The International News, "National Nutrition Survey to be launched today", September 17, 2011
[18] UNDP MDG website
[19] The Express Tribune, "National Nutrition Survey 2011, Food Insecurity affecting 60% of women and children", September 18, 2011
[20] http://pphi-nwfpfata.org/nwfp.php
[21] Department of Health, Management Information System, Government of Khyber Pakhtunkhwa
[22] P&D/UNICEF/DFID. Multiple Indicators Clusters Survey, Government of Khyber Pakhtunkhwa, 2008

partners, who contribute an estimated 8% of the total health expenditure.[23] Partners, such as USAID, DFID, UNICEF, WFP, MI, and WHO, are involved in the development of the overall health policy and health system by bringing in international expertise, information, resources and technology.

In the last decade, USAID has assisted the GoP in improving maternal, newborn and child health through the Pakistan Initiative for Mothers and New-born (PAIMAN) in selected districts. UNICEF/WFP/MI/WHO have initiated programmes for salt iodization, wheat flour fortification, vitamin A supplementation for children, community management of acute malnutrition, National Nutrition Survey 2010-2011, and capacity building of public and private sector health care providers, programme managers and community workers.

[23] National Health Policy 2009, Ministry of Health, Govt. of Pakistan, Islamabad.

2. THE CMAM PROGRAMME, DESIGN, POLICY AND PARTNERSHIP IN PAKISTAN

This chapter discusses the evolution of CMAM in Pakistan, its design in relation to global models, and policy governing its implementation.

2.1 Evolution of CMAM

The first CMAM programme in Pakistan was initiated in Khyber Pahtunkhwa (KP) in September 2008 in Kacha Grahi camp (Nasir Bagh, Peshawar) as an emergency response to support IDPs following monsoon rains and floods. CMAM was gradually expanded to the Jalozai camp (Nowshera), the Khoongi camp (Lower Dir) as well as in IDPs' host districts (Charsadda, Mardan), and militancy affected and extremely food insecure districts (Buner, Shangla). The poor health and nutritional status of women and children in the camps called for provision of ready to use supplementary and complementary foods which required little or no cooking as there were limited cooking facilities during the early days of displacement.

The KP Department of Health (DoH) with UNICEF established a provincial nutrition cluster in 2009 to ensure a timely, well-coordinated response in conflict and flood affected areas. The main focus of CMAM was to treat malnourished children, however, the programme also provided an opportunity to the DoH and NGOs for enhancing and strengthening capacity of their health care providers and community health workers in the management of acute malnutrition. This occurred both at the community and facility levels along with promoting appropriate infant and young child feeding (IYCF) practices.

In 2009, further expansion of CMAM activities took place to accommodate growing numbers of IDPs in camps and host districts (Lower Dir, Malakand, and Swabi) due to continued militancy in Swat North and South Waziristan. By the end of 2009, UNICEF had signed 18 Project Cooperation Agreements (PCAs) with 14 implementing partners (IPs) to cover 9 districts.[24] In 2010, after the militancy surge in southern parts of KP, four more southern districts (Kohat, Hangu, Tank, D.I.Khan) and one northern district (Swat) were included to make a total of 14 CMAM targeted districts funded mostly by UNICEF with a total cost of $13 million (Rs. 1 billion).

Under the CMAM initiative, a total of 365 Supplementary Feeding Programmes/Outpatient Therapeutic Programmes (SFP/OTPs) sites (353 sites in health facilities and 12 sites in IDPs camps) of KP and one agency of FATA (8 sites in health facilities) and 11 Stabilization Centres (SCs) were established for providing services to around 8 million people. Two international and 10 national IPs received financial and technical support to establish and implement CMAM/IYCF/Multiple Micronutrient interventions in the affected districts while 10 MOUs were signed with the DoH for the establishment of 10 SCs in 7 districts of KP.[25] During 2010, the number of CMAM (SFP/OTP) sites was reduced to 220 as the IDPs began returning to their homes. At the start of the CMAM evaluation in June, 2011 the number of CMAM centres was further reduced due to non-availability of funds and most centres were running the programme with a no cost extension.

The KP government in collaboration with UNICEF has started the integrated nutrition programme in 7 health facilities of District Mardan as a pilot non-emergency CMAM project where financial, technical and material support is being extended to DoH by UNICEF till December, 2012. It is anticipated that by the

[24] Implementing partners included: Abaseen, Relief International, Rahbar, Islamic Relief, Merlin, Johanniter International, Peace, Relief Pakistan, SDF, CERD, CDO, FPHC, Philanthrope, SC-USA. The districts were Peshawar, Charsadda, Nowshera, Mardan, Swabi, Buner, Lower Dir , Shangla, Malakand

[25] UNICEF. Annual Report MCHC Khyber Pakhtunkhwa & FATA, UNICEF Peshawar, 2010

end of 2012, the KP Government would include CMAM activity in its annual development plan (ADP) as well as in Planning Commission-I (PC-1) held by the Planning and Development Section, Department of Health, but it would require sensitization for planners, policy makers and financial managers to support and sustain the CMAM activity in the province.

2.2 CMAM Design and Implementation in Pakistan

The Pakistan CMAM model closely follows the global model with four distinct components:

1. **Community outreach (screening, referral, home visits and community sensitization)** to promote understanding of CMAM and prevention of malnutrition, identify children with moderate acute malnutrition (MAM) and severe acute malnutrition (SAM) between 6-59 months of age and refer them to supplementary and therapeutic feeding centres for detailed anthropometry and registration for appropriate management and treatment, with follow-up through home visits

2. **Outpatient therapeutic services** in which children who are severely malnourished (MUAC <11.5 cm) with good appetite and no medical complications are registered at OTP centres and receive ready to use therapeutic food (RUTF) for use at home, routine medications and follow-up visits

3. **Inpatient care** by referral of malnourished children (MUAC <11.5) with bilateral oedema and medical complications to Stabilization Centres (SC) for detailed investigation and stabilization and then referral back to the OTP centre for therapeutic feeding and follow-up

4. **Outpatient services** for moderately malnourished children (MUAC 11.5 - 12.5 cm) who are registered in supplementary feeding programmes (SFP) and receive a take home ration of ready-to-use supplementary food (RUSF) or fortified blended food (FBF) with follow-up visits.

2.3 CMAM Policy and Implementation

The Government of Pakistan has demonstrated commitment to child development at the World Summit for Children in 1990[26] and the Millennium Summit of the United Nations 2000[27] and though the Medium Term Development Framework, Planning Commission, which aims to reduce poverty, hunger, children's malnutrition and mortality by bridging public-private partnerships. [28] However, when CMAM was launched in 2008, there was no official nutrition policy in place to combat acute malnutrition. All previous nutrition interventions were based on donor driven approaches with very little input from the government, focusing on salt iodization, wheat fortification, iron and folate supplementation, and multiple micronutrient supplementation, among others.

There is still no official national nutrition policy. The PINS represents a large number stakeholders and provides a good opportunity to integrate health and nutrition programs but it requires substantial strategic support to the provinces for provincial level planning and implementation. The *Pakistan National Guidelines for the Management of Acute Malnutrition* (2010)[29] have been published and used in capacity building. The establishment and functioning of CMAM centres in emergency as well as in non-emergency situations are also in line with the global guidance.

UNICEF's Role in Implementation of CMAM

In addition to co-chairing the nutrition cluster with the MoH to coordinate nutrition interventions, UNICEF's contribution to CMAM includes the following activities.

[26] http://www.unicef.org/wsc/
[27] http://www.un.org/millennium/summit.htm
[28] http://www.planningcommission.gov.pk/mtdf.html
[29] National guidelines for the management of acute malnutrition among children under five and pregnant and lactating women

- **Supplies.** UNICEF procured supplies worth US$3.5m distributed by its implementing partners including equipment (anthropometric equipment, measuring boards, weight machines, MUAC tapes), nutritional supplements (RUTF, RUSF, FBF, F-75 and F-100 therapeutic milks), antibiotics, micronutrients, and folic acid and iron supplements.
- **Capacity Building and Training.** UNICEF was responsible for enhancing the capacities of staff in hospitals and health units and among the implementing NGOs.
- **Establishment of CMAM Sites.** CMAM sites were setup initially in the vicinity of Peshawar for the flood victims of August 2008 and were then expanded to other sites, supported by UNICEF and run by implementing partners.
- **Advocacy, Awareness and Behavioural Change Communication Strategy.** Thousands of mothers were reached through outreach campaigns through breastfeeding corners, radio shows, seminars, awareness sessions and printed materials under the Infant and Young Child Feeding (IYCF) Program.
- **Development of a Nutrition Information System (NIS).** The NIS was developed for CMAM data entry which has been continuously upgraded to meet the requirements of field data collection.

The Roles of WFP, WHO and the Government in the CMAM Programme

The World Food Programme (WFP) has been an active partner in planning and implementation of CMAM programme not only in Khyber Pakhtunkhwa but also in other parts of the country where emergency situation cropped up from time to time. The WFP has been in the forefront of reducing malnutrition in women and children by transporting and distributing FBF and RUSF for moderately malnourished children, providing high energy biscuits to their siblings and supporting some operational costs. The efforts of WFP in emergencies have been highly appreciated both by Government and development partners. The WHO has an agreement to help the KP government in establishing and strengthening the Stabilization Centres at district level while Merlin and WHO have also entered into a bilateral cooperation for the establishment of an SC in Pabbi (Peshawar). The GoP and three development partners (UNICEF/WFP/WHO) are sharing the CMAM responsibilities, with UNICEF supporting operational costs, therapeutic food, medicines, equipment and capacity building of IPs and national medical staff. The GoP has been providing health facilities and services of staff in undertaking the CMAM activities in the communities and hospitals.

2.4 Management of CMAM and Partnership Arrangements

Seventeen international and national Implementing Partners (IPs) supported CMAM as described in the costing analysis in Chapter 6. MOUs were signed with 11 tertiary care hospitals including five teaching hospitals serving as SCs. UNICEF provided funding to the SCs for renovation and equipment. An additional 20 PCAs were signed with 15 IPs. The KP DoH was constantly provided with support to monitor the activities of CMAM. The SFP/OTP centres were established in 24 IDP Camps and 265 Union Councils in 10 IDP hosting districts and 4 conflict affected districts. All operational costs were borne by UNICEF in collaboration with WFP and WHO.

Each IP was assigned 10 or more CMAM centres per district which were established in the health facilities with the support of the MoH/DoH and other federally funded health establishments such as the Peoples' Primary Healthcare Initiative (PPHI) and the Lady Health Worker Programme (LHWP). CMAM was mainly run by the IPs however the goal was its ultimate integration into the health system and as such the KP DoH has provided space and staff and in return they received a nominal honorarium from the implementing partners. In KP, the IPs themselves were prone to crisis situations such as floods and military operations. The IPs which continued their CMAM activities in KP till the end of June, 2011 included Merlin, Abaseen, Peace, Rahbar, Cerd, and Relief Pakistan.

The IPs carried forward the implementation of CMAM through a multipronged strategy of having a diverse team of field workers and facility based staff as shown in Figure 1. The teams employed a well thought out plan of establishing nutrition support committees (NSC) to involve the local community in CMAM, assist women community outreach workers (COWs) in accessing the local community, and to dispel rumours and misperceptions of the IPs and the programme. The Social Mobilizers (SMs), COWs and Health and Nutrition Educators (H&NEs) had roles in sensitizing the local notables, increasing community awareness in nutrition, screening and referral to SFP/OTP centres as well as counselling households in good health and hygiene practices.

The structure and functioning of CMAM at district level as shown in Figure 1 was headed by the Project Coordinator (PC) who managed the administrative and operational aspects of the project. The PC was responsible for monitoring, coordination with the Health Department, UNICEF, WFP, government agencies and NGOs, submission of financial and performance reports to donors, local Executive District Officer Health (EDOH), DoH, correspondence with head office and other offices and entertaining government officials for their inquiries, among other duties. The PC was assisted by two Team Leaders, each responsible for monitoring, managing and reporting of 5 CMAM centres' activities; two Health and Nutrition Educators, one each for five CMAM centres to disseminate health, hygiene and nutrition knowledge among the women through door to door visits. Each CMAM centre had one Social Mobilizer (SM) and 2-3 Community Outreach Workers (COWs) for identification and screening of malnourished children and for referral of malnourished children to SFP/OTP centre.

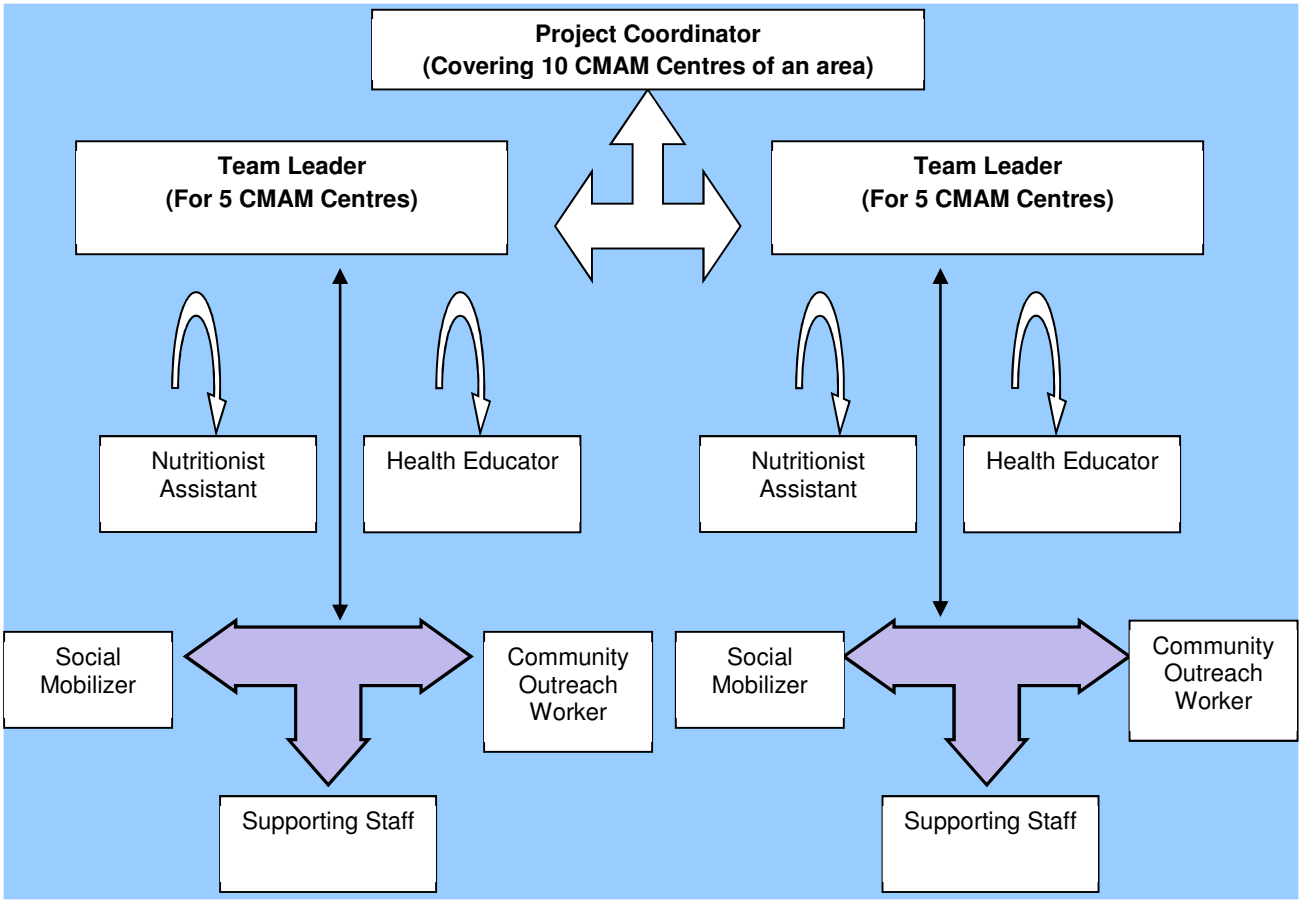

Figure 2: Organ-o-gram of CMAM Staff at Union Council Level.

3. EVALUATION SCOPE AND METHODOLOGY

This chapter contains the evaluation objectives, users, scope, team, methodology and constraints. The chapter also discusses data quality.

3.1 Evaluation Scope

The purpose of the evaluation is to assess the performance of the CMAM programme in Khyber Pakhtunkhwa (KP) in terms of its relevance and appropriateness, effectiveness and coverage, efficiency and quality, and sustainability and scalability. The evaluation seeks to assess the degree of success achieved in the treatment of acute malnutrition in KP and to gather lessons learned for application in Pakistan and other national CMAM programs. The research design relied on baseline and routine monitoring data and in-depth interviews and focus groups discussions. The evaluation addresses the questions posed in the global Terms of Reference Questions (see Annex 4) as applied to the country context.

This evaluation will contribute to a global synthesis of good practices and lessons learned. Because of its national and global scope, the users of the evaluation will be very wide ranging, including governments, UN agencies, donors, NGOs, academic institutions, and community groups in Pakistan and many other countries. The most immediate use for the Pakistan report is at the national level by the GoP, programme managers, UNICEF and other UN and non-UN partners who are involved in addressing child malnutrition in Pakistan.

3.2 Evaluation Objectives

Pakistan is one of five case study countries for the Global "Evaluation of Community Management of Acute Malnutrition", being commissioned by the UNICEF Evaluation Office in collaboration with the Nutrition Section, Programme Division, New York. The objectives of the evaluation are:

1. To undertake analytical assessment of the progress achieved in implementing CMAM in KP to identify key successes, good practices, and gaps / constraints that need to be addressed.
2. To examine CMAM programme performance using standard OECD / DAC criteria of programme relevance/appropriateness, efficiency and quality of services, effectiveness, impact (potential) and sustainability.
3. To examine the effectiveness of related cross-cutting issues such as coordination and management; gender and other forms of equity; capacity development; advocacy and policy development; and information/data management.
4. To document good practices and generate evidence-based lessons and recommendations to strengthen on-going efforts towards expansion of CMAM coverage in Pakistan and other countries in need and for strengthening global /regional level guidance and support.

3.3 Evaluation Team and Consultative Bodies

The national evaluation team for Pakistan was composed of: Dr. Parvez Paracha, health and nutrition expert, Dr. Zia-Ud Din, child health specialist, Niamat Ullah, nutritionist, Adil Saeed, health economist, and Yasmin Asif, nutritionist. The national consultants were joined by Camille Eric Kouam, CMAM expert, and Sheila Reed, evaluation expert, who formed the global synthesis team. The global synthesis team provided oversight to ensure that the evaluation framework, design, study implementation, including quality data collection, analysis and report writing are aligned with the global evaluation quality and standards. The team was supported in implementation of the evaluation by a national reference group including, UNICEF, Ministry of Health Nutrition Cell, Islamabad, and the Department of Health, Peshawar.

3.4 Evaluation Methodology

A comprehensive research and analysis framework was developed to assess the CMAM activities in KP and was described in the global synthesis inception report.[30] It was modified in coordination with the national consultants and the national reference group. The evaluation design involved collection and analysis of quantitative and qualitative data, as well as a cost analysis of the CMAM programme. Data were collected from primary and secondary sources.

Evaluation planning took place well in advance of arrival of the global consultants with selection of the national consultants. However, the health economist was hired at a later time limiting his interaction with the team during the field work. The evaluation was initiated in Pakistan on 29 May 2011 with a meeting of the evaluation team with the Ministry of Health Nutrition Cell in Islamabad, followed by development and finalization of the methodology and data collection tools. The evaluation team then met with the UNICEF health and nutrition team in Peshawar. The data collection at the CMAM sites took place over a period of 20 days in the communities and health posts. The team also collected data in Islamabad and Peshawar. The reporting period extended into 2012.

Capacity for the data collection process was strengthened through discussion and finalization of the questionnaires and checklists through extensive communications among national and global consultants. The tools were pre-tested by visiting one of the CMAM sites, Akbur Pura Rural Health Centre. The recorded data were analysed and necessary changes made in the evaluation tools. Team meetings included discussion regarding interview skills, qualitative data compilation and consideration of ethical issues in relating to people interviewed. The responsibilities of the team members were clarified with regard to coverage of TOR questions and implementation of the work plan.

All data were triangulated to ensure validity of conclusions, as outlined in Table 3.1. Qualitative information was translated and transcribed and triangulated. Primary and secondary qualitative information was also compared and as well as complementing quantitative analyses with qualitative analyses.

The evaluation report, as with the evaluation process, was assessed on the basis of the UNICEF Evaluation Report Standards (2004) and the Active Learning Network for Accountability and Performance (ALNAP) Pro Forma standards (2001). Both draw on good practice in evaluation of development and humanitarian action, incorporating recognized evaluation standards and OECD-DAC evaluation criteria with other cross-cutting issues.

3.4.1 Data Collection Methods, Tools and Sources of Data

The team conducted a review of project documents and secondary data sources. Approximately 30 documents were consulted as well as programme databases. (See Documents Consulted in the annexes.) The primary qualitative data collection methods at central, provincial and district levels consisted of focus group discussions, consultative meetings, workshops and in-depth individual interviews with key informants. Perceptions on the quality of services, the effects of these services on the beneficiaries' quality of life, constraints and recommendations were assessed. Interview and focus group discussion guidelines were designed to cover the questions posed in the TOR.

An observation grid was developed to document direct observations of CMAM activities, facilities and supplies. The observation grid focused on seven basic features regarding site, crowd management, staff

[30] *Evaluation of Community Management of Acute Malnutrition (CMAM), Inception Report*, by Camille Eric Kouam and Sheila Reed, final report, August 2011.

behaviour and attitude towards the community, drinking water and cleaning facilities, and presence of job descriptions and guidelines.

Table 3.1: Methods of Data Collection, by Source and Nature of Data

Nature of Data	Sources of Data	
	Primary	**Secondary**
Quantitative	Health Facility inventories	Baseline surveys and assessments Routine monitoring data e.g. length of stay Nutrition Information System (NIS)
Qualitative	Focus Group discussion Direct observation In-depth individual interviews Consultative meetings and workshops	CMAM policy and program UNICEF annual and periodic reports Other development partners' documents Ministry of Health and District Health reports
Triangulation	Mix of qualitative and quantitative findings	Review of qualitative and quantitative data from the baseline survey reports, CMAM policy and programme documents and previous reports

3.4.2 Sampling Design

A purposive sample of CMAM sites was selected based on logistical and security issues, accessibility during the evaluation period and need to coordinate with IPs and the District Health Offices. Twelve Supplementary Feeding Programmes (SFP) and Outpatient Therapeutic Programmes (OTP) and seven Stabilization Centres (SC) (out of 11) were sampled. In site selection, attempts were made to include all geographical areas and all IP's. The sites visited are shown on the map of Khyber Pkhtunkhwa below.

Only 10% of the functional CMAM centres could be visited due to time, cost, and security considerations. The security situation, conflicts and militancy prevented the national consultants from visiting remote sites.

The team conducted approximately 40 key informant interviews (see Persons Consulted in the annexes) including staff from:

- Ministry and Department of Health (Nutrition, Health System Reforms Unit (HSRU), Reproductive Health Child Health Division, District Health Offices, OPTs, SC staff)
- Implementing Partners (Merlin, Abaseen, CERD, Rahbar, Peace, Relief Pakistan)
- Independent nutrition and food security experts and academia (2)
- UNICEF staff and consultants (Nutrition, Health, Water and Sanitation, senior management, field office management, CMAM consultants and monitors)
- Other UN agencies (WHO, WFP)
- Multilateral donors (World Bank, DFID, USAID, AUSAID)
- Private sector (Potential RUTF/RUSF producers)

The team conducted 72 focus group discussions with more than 800 participants including: community health workers, community leaders, and beneficiaries of the CMAM programme (mothers and fathers of children admitted in the program).

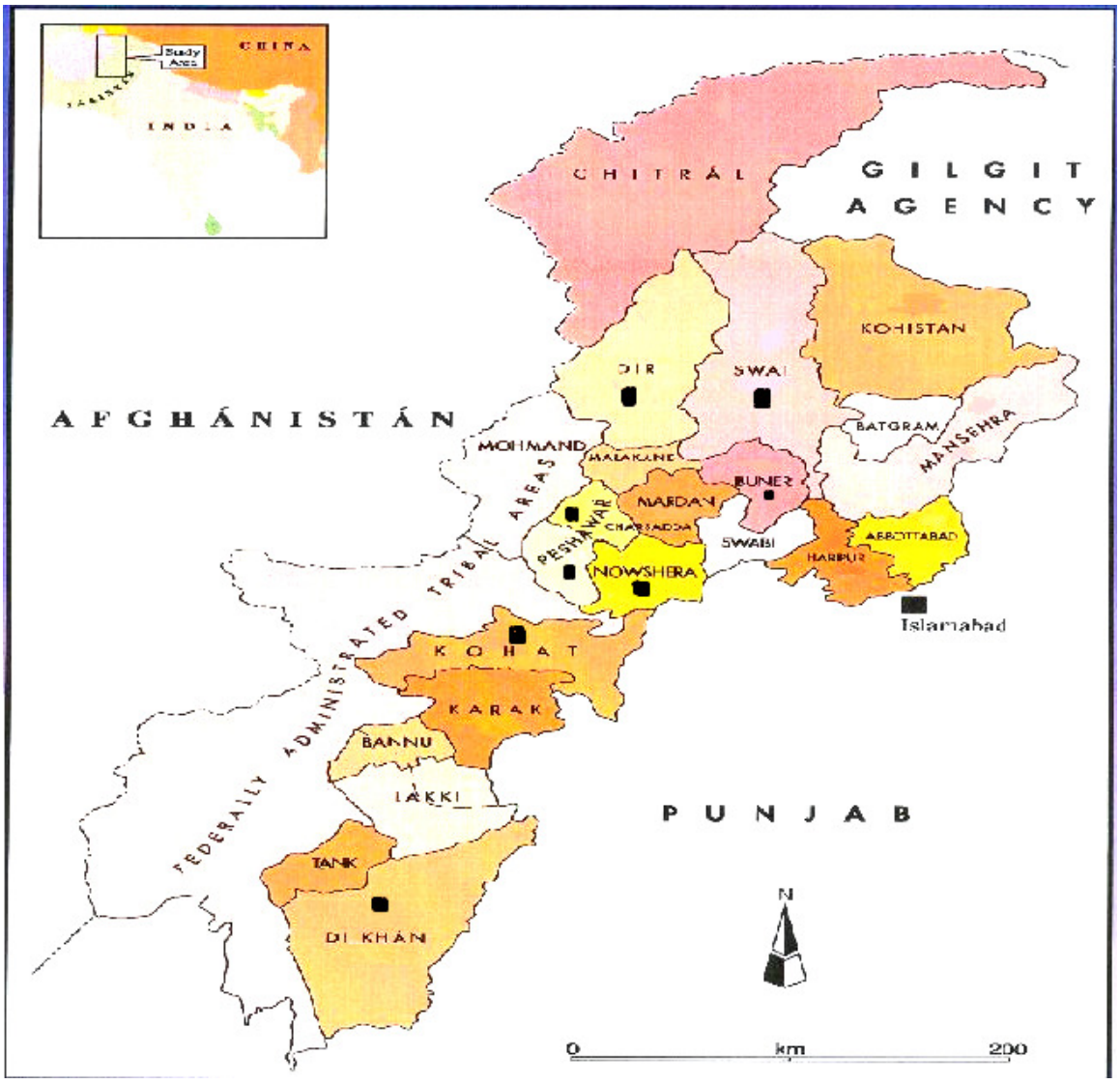

Figure 3.1. District Map of Pakistan's Provincially Administered Tibal Areas.

3.4.3 Cost Analysis Approach

For the purpose of estimating the CMAM costs, the total annual CMAM expense was disaggregated according to the following scheme (see Chapter 6).

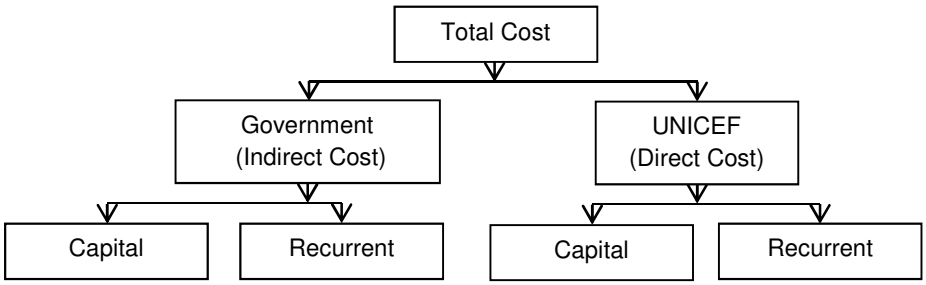

Figure 3.2. Diagram Showing Disaggregated Total Annual CMAM Expense.

The Meaning of Some Key Concepts

- ***Capital cost:*** Vehicles, equipment, buildings, spaces, hospitals, storage facilities.
- ***Recurrent cost:*** budget allocated for salaries of staff, Top-ups, allowances, trainings, petrol, utilities, budget allocated for provision of drugs, medicines, food supplements, etc.
- **The cost per beneficiary** is based on the total cost which include both the capital and recurrent cost.

The cost analysis covered 45 CMAM sites in 8 districts: Lower Dir, D.I.Khan, Buner, Kohat, Nowshera, Shangla, Swabi, and Swat. The targeted population in the 45 sites represented **24.6 %** of the total target population under the entire programme. The criteria for selection of sampled districts were victims either of floods or militancy, the availability of health related services and the poverty level. A total of **6** Stabilization Centres and **9** SFP/OTP were visited for the cost analysis.

Detailed records of PCAs and budget sheets of all projects in the Khyber Pakhtunkhwa, executed under CMAM programme, were collected at the UNICEF Peshawar office. Tables, percentages, averages, symbolic/graphical representation, Microsoft Excel and Word Sheets were used. The data were arranged into tabular form and interpreted.

3.4.4 Limitations of the Evaluation

The evaluators experienced some constraints in data collection and analysis and addressed them as follows:

- Data could not be collected from all intervention and control sites for comparison purposes because of time, cost and security reasons. Since all CMAM sites could not be visited and some sites were closed due to non-availability of funds, the data collected from the selected field sites and those available at UNICEF Peshawar office were pooled and relied upon.
- There was lack of uniformity in record keeping/documentation at the centres, thus only the net output of beneficiaries at each component was compared with the available figures at the UNICEF office.
- Data concerning the use of government resources, such as infrastructure, services, utilities etc. were very difficult to obtain, therefore, the usage of government's resources could not be analysed but an estimate of the government contribution was made.

- The constantly fluctuating population due to the impact of conflict and natural disaster made population numbers hard to pin down and targets difficult to set and monitor and this challenge was considered in the analysis.

- Data on usage of traditional medicine or private clinics which might have been relevant to coverage and demand for CMAM was not available to the team. Nevertheless, estimates of percentage of usage of private services were discussed.

4. PROGRAMME EFFECTIVENESS AND QUALITY OF SERVICES

This chapter presents findings on the effectiveness of the four CMAM components: 1) Community Outreach; 2) Outpatient Treatment Services (OTP) to treat severe acute malnutrition (SAM) without medical complications; 3) outpatient management of moderate acute malnutrition (MAM) in Supplementary Feeding Programmes (SFP); and 4) inpatient care for malnourished children with medical complications in Stabilisation Centres (SC). The effectiveness of each of the component activities is determined by using a *cross district comparison* of the performance against programme indicators and standards, and coverage, quality, timeliness and sustainability are also discussed. Throughout the chapter, *'reference period'* encompasses 31 December 2010 to 17 November 2011. Complete quantitative data were available during this reference period for six out of the seven visited districts. These districts are Buner, Charsadda, D.I. Khan, Kohat, Lower Dir and Swat.[31]

4.1 Community Outreach

According to the *Pakistan National Guidelines for the Management of Acute Malnutrition* (2010)[32], the purpose of community outreach is to:

- *Promote understanding and ownership of the programme*
- *Increase programme coverage*
- *Strengthen active case finding, referral and follow up*
- *Understand reasons why people do not access services and reasons for absence and defaulting so that they can be addressed*
- *Link prevention and treatment of malnutrition at the community level*

Activities consist of identifying key community decision makers, engaging in dialogue with community members, training community providers in core functions, case finding and referral and follow-up visits to find absent or defaulted children. In the government health system, roles in community outreach are assigned to Lady Health Workers (LHW), Lady Health Visitors (LHV) and community health workers.[33] Community volunteers can also be recruited to assist with case finding and follow up. In the delivery system through Implementing Partners (IPs), all community outreach activities were accomplished through Social Mobilizers (SMs), Community Outreach Workers (COWs), and Nutrition and Health Educators. All workers were employees of the IPs and their tasks were not integrated with the government system.

The COWs were assigned the task of door to door visits within the target community to screen, identify and refer malnourished children to the SFP/OTP centre and ensure their compliance through follow-up visits. The Social Mobilizers facilitated COWs access to households. The figure below presents the community outreach framework as designed and implemented by the IPs in KP.

Generally, COWs were assigned to cover a certain number of villages in Union Councils (UC) from a minimum of 10 villages in district Nowshera and Rabat to a maximum of 24 to 30 villages in Swat and Buner. Swat, Buner and Lower Dir had mountainous and scattered targeted areas where COWs might

[31] Complete data sets were not available for Nowshera
[32] National guidelines for the management of acute malnutrition among children under five and pregnant and lactating women
[33] LHV/LHWs had not been involved in social mobilization, nutritional assessment/OTP, however they may have been involved in SFP where MOUs were established with MoH and received salary top offs.

face mobility problems, however, IPs facilitated their work with the provision of transport as close as possible to the sites.

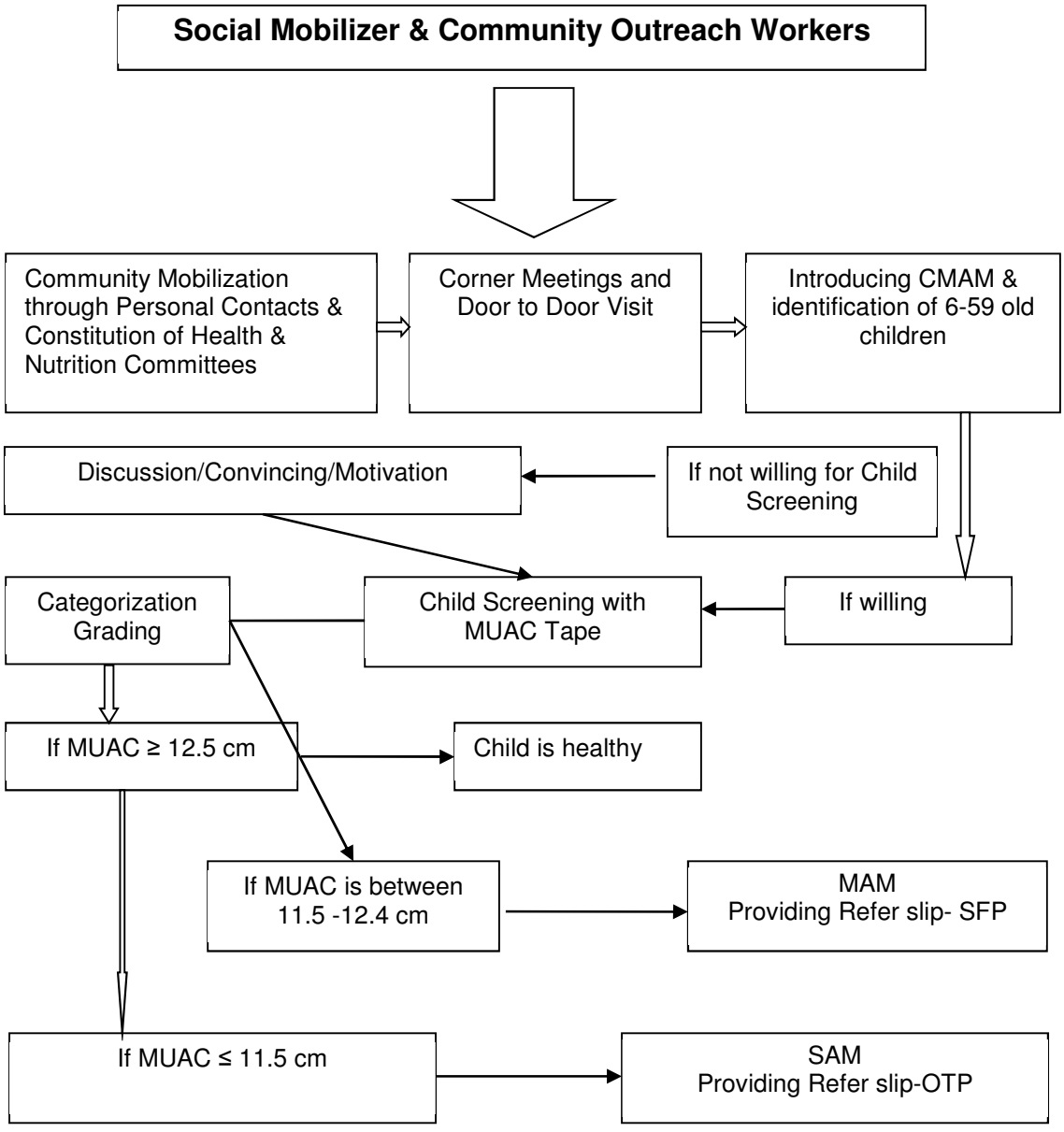

Figure 4.1: Social Mobilization and Community Outreach Programme.

4.1.1 Screening

The national guidelines stipulate that in order to reach as many children as possible, *"children can be screened through house to house, at health facility and outreach programs, at community meetings, health campaigns in the community and at other opportunities, and growth monitoring sessions".* Malnourished children are identified by MUAC and assessment for oedema. All SMs and COWs received 2-3 days of training in CMAM however, most had no formal medical or nutrition education and their

knowledge was limited to these trainings. Their accuracy in case identification varied and some expressed the need for refresher trainings on nutritional assessment.

At the household level, when moderate acute malnutrition (11.5 ≤ MUAC < 12.5) and severe acute malnutrition (MUAC < 11.5 cm) was identified, the COWs issue referral slips to the caretakers. Some children with severe acute malnutrition (SAM) who were identified in screening failed to report to SFP/OTP for admission. This occurred for several reasons including long distances from their houses, reluctance of men to permit their wives and children to visit the centres, failure of COWs to counsel mothers properly, or mothers' mistrust of the programme.

Treatment coverage is an important criterion for evaluating the nutrition programmes; unless high levels of treatment coverage can be achieved, selective nutrition programmes will not have a significant impact on the population.[34] However, to estimate coverage with reasonable precision, special coverage surveys need to be conducted. In KP, no coverage survey has yet been conducted. Without a coverage survey and incomplete data for many of the CMAM sites, coverage estimates can be pieced together but cannot be considered as conclusive.

In KP, the FANS nutrition survey estimated that CMAM services were required for 93,990 moderately malnourished children and 36,620 severely malnourished children in the first six months of 2011. UNICEF estimated that 70,000 children with MAM and 14,000 SAM cases benefited from CMAM in select areas of KP during the reference period. Coverage in some areas was difficult or impossible due to security issues, lack of access due to flood damages and distance, and population movements. Alternative solutions, such as mobile teams, are needed to reach the remote areas.

During the reference period, a total of 457,010 children were screened in the six districts. Boys and girls were equally represented, with percentages of 49% and 51% respectively (Table 4.1). According to the COWs and parents interviewed, most of the screening activity was performed at household level, and children were referred to SFP/OTP sites for admission. Several districts set screening targets but in some cases the targets were vastly exceeded or not met, mainly due to difficulties faced by programme managers in estimating the population, which in many areas was constantly fluctuating. This is a critical issue for programme efficiency given that the determination of targets helps to plan needed resources, and it implies that programme targets need to be revised as the situation evolves.

At the outset of the programme several problems interfered with routine screening. The majority of SMs and COWs reported a turbulent start as people were against the name, work and supplies of NGOs. Resistance in screening came mainly from community leaders who subsequently influenced community members due to a perception that NGOs promoted practices that are not culturally acceptable, such as family planning and mixing of male and female children. Some parents and communities were also opposed to the branding by WFP which appeared on the RUSF packets. (UNICEF does not brand RUTF.) In addition, mothers often refused screening of their children and demanded food and medicines. It took a while to dispel misperceptions about the NGOs and RUSF/RUTF. However, some factors that might have influenced higher screening achievements in Charsadda and D.I. Khan constituted good practice. The SMs and COWs worked closely in the communities to ensure that all children in the selected areas were screened and the malnourished were efficiently referred to SFP/OTP centres. The SMs created mass nutrition awareness particularly among men through the establishment of nutrition support committees (NSCs) and corner advocacy meetings that facilitated the COWs entries into the households for screening.

[34] Flood-affected Nutrition Survey in KP, December 2010, page 12.

Table 4.1: Screenings During the Reference Period

District	Males		Females		
	Number	%	Number	%	
Buner	12568	51%	12006	49%	24574
Charsadda	22902	48%	24555	52%	47457
D.I. Khan	30683	49%	31468	51%	62151
Kohat	12962	51%	12620	49%	25582
Lower Dir	71405	49%	73345	51%	144750
Swat	73310	48%	79186	52%	152496
Overall	**223830**	**49%**	**233180**	**51%**	**457010**

4.1.2 Referral and Admission

According to the national guidelines, "*a simple referral slip should be used for referring a malnourished child. This should be done in duplicate copy so that one copy is given to the caretaker and the other is kept for the record".* Almost 60% of children were referred to the SFP/OTP centres by COWs using a referral slip. A significant number of them, 36%, were also referred by other family members and community members (Figure 4.2). Only 3% were considered to be self-referred generally when they presented to the health facility for other health issues and during clinical examination were identified as malnourished.

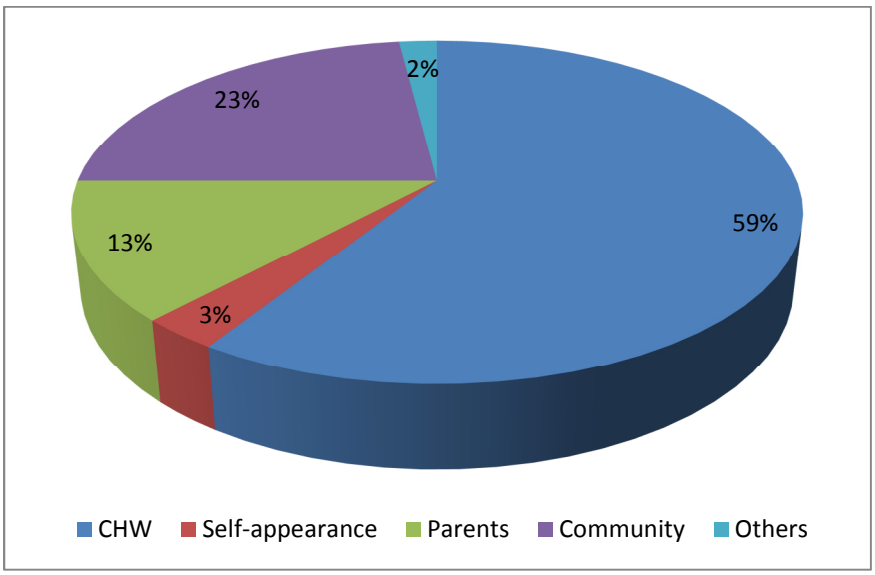

Figure 4.2. Referred Children to OTP/SFP sites.

From the 457,010 children screened during the reference period, 70,647 (15%) were identified as malnourished (Table 4.2). Of these 57,946 (12%) children who were moderately malnourished were admitted to SFPs. And, 12,701 (3%) children who were severely malnourished were admitted to OTPs. Among the children admitted in the OTP, only 1% was referred from the OTP to the SC for treatment of medical complications. Some reasons for low levels of identification of complications and successful referral from OTP to SC include: (i) the distance between the OTP and SC was 10-20 km; (ii) in many districts SCs were not available and were being established during the evaluation; or (iii) some children

with complications were not effectively identified and referred due to absence of medical doctors in the health facilities. (Please see sections below on SC performance and MAM for additional discussions regarding referrals.)

Table 4.2: Admitted Children among Those Screened

	Screened	Admitted to OTP		Admitted to SFP		Total admitted	
		Number	%	Number	%	Number	%
Buner	24574	1242	5%	4181	17%	5423	22%
Charsadda	47457	1890	4%	8385	18%	10275	22%
D.I. Khan	62151	1653	3%	7031	11%	8684	14%
Kohat	25582	302	1%	1001	4%	1303	5%
Lower Dir	144750	5251	4%	26719	18%	31970	22%
Swat	152496	2363	2%	10629	7%	12992	9%
Overall	**457010**	**12701**	**2.8%**	**57946**	**12.6%**	**70647**	**15.4%**

4.1.3 Household Visits and Follow Up

The household visit is performed for the purpose of *"tracing children who are absent or have defaulted, and encouraging the caretaker to return. It also targets children who have static weight or have lost weight"*. The COWs undertake regular consultative meetings with their assigned SFP/OTP in charge (Nutrition Officer/Assistant) to learn about the attendance of the referred children and they target those who failed to report with follow-up visits. The follow up response varied from centre to centre as some of the COWs regularly followed the defaulters while others did not. SMs and COWs of Swat and Lower Dir more rigorously followed the national guidelines because of better management, higher incentives (paid by the IPs and included in project budgets) and well qualified nutritionists and field staff. They had also formed some mothers' support groups in the targeted villages that motivated the parents to bring their children to SFP/OTPs on the scheduled dates. The SMs and COWs in some areas also involved religious scholars in advocacy efforts and encouraged parents to visit the CMAM centres for treatment.

However, some fathers reported that children's follow-up activity was not rigorously performed by SMs and COWs and this was one of the reasons for poor compliance and defaulting. Major reasons for weak follow-up mentioned by COWs were the difficult terrain to reach families particularly in cold weather and unavailability of families due to their migration to other towns and cities. Other reasons mentioned were the difficulties of female health worker acceptance in the communities and low salaries for COWs.

4.1.4 Community Sensitization and Mobilization

According to the national guidelines, community sensitization and mobilization consists of

- *Getting information on community structure and its key stakeholders*
- *Understanding the local perception of malnutrition*
- *Involving key community members from the outset of the programme*

Nearly all CMAM sites effectively established NSCs to involve the local community, assist women community outreach workers (COWs) in accessing the local community, and to dispel rumours and misperceptions. Regular meetings and advocacy seminars were held to ensure parents' participation. The

meetings and seminars played a pivotal role in enhancing community motivation and awareness that facilitated the implementation of CMAM.

Men play a dominating role in the society of KP and women require their husband's permission or support for participation in community activities. Women are largely house-bound. The SMs encouraged men to allow their wives to visit the centre to receive treatment for their malnourished children. Many who attended the NSC committee meetings agreed to cooperate while others cooperated only when they discovered that free RUSF/RUTF and medicines were being distributed. Some of them were initially reluctant but after a few discussions and by observing the positive results of CMAM, they agreed to participate. Nevertheless, in some areas, men still refused to allow women COWs to enter their homes and talk to their wives.

> *"At the onset, it was a challenge to run the CMAM programme in communities as people were averse to implementing partners (NGOs) and had misperception about their operations and agenda and a great deal of mistrust was rooted in their minds. But all that changed when the effectiveness of CMAM was observed and transformation of malnutrition cases into normal and healthy ones, the people attitudes changed and people became more cooperative".* Programme Manager, KP.

> *"In the beginning of the CMAM programme, we were all sceptical and against the implementing partners (NGOs) and foods given to children. But subsequently on observing the positive effects of CMAM on other children, and through frequent discussions and counselling of social mobilizers, we were convinced and brought our children for treatment".* Mothers, KP.

Discussions with fathers revealed that most of them knew about CMAM through SMs, COWs, and the staff of the health facilities. All the CMAM centres had one male SM who either accompanied COWs during their visits or worked independently to reach community notables, religious scholars, community Nazims and counsellors to educate them on CMAM and elicit their support. The SM also had the responsibility of constituting committees for regular feedback on the progress and complaints of the people.

The SMs, COWs and Health and Nutrition Educators (H&NEs) played an important role in counselling households, providing counselling sessions on CMAM, hygiene, breast feeding and IYCF. These sessions showed evidence of behaviour changes and reducing inappropriate feeding and poor health and hygiene practices. As shown in Figure 4.3, 16% of the SMs and COWs conducted awareness sessions with parents on child's health issues, 12% on breast and complementary feeding, 34% on hygiene and sanitation, 18% on importance of food in health and 20% on nutrition during pregnancy and lactation.

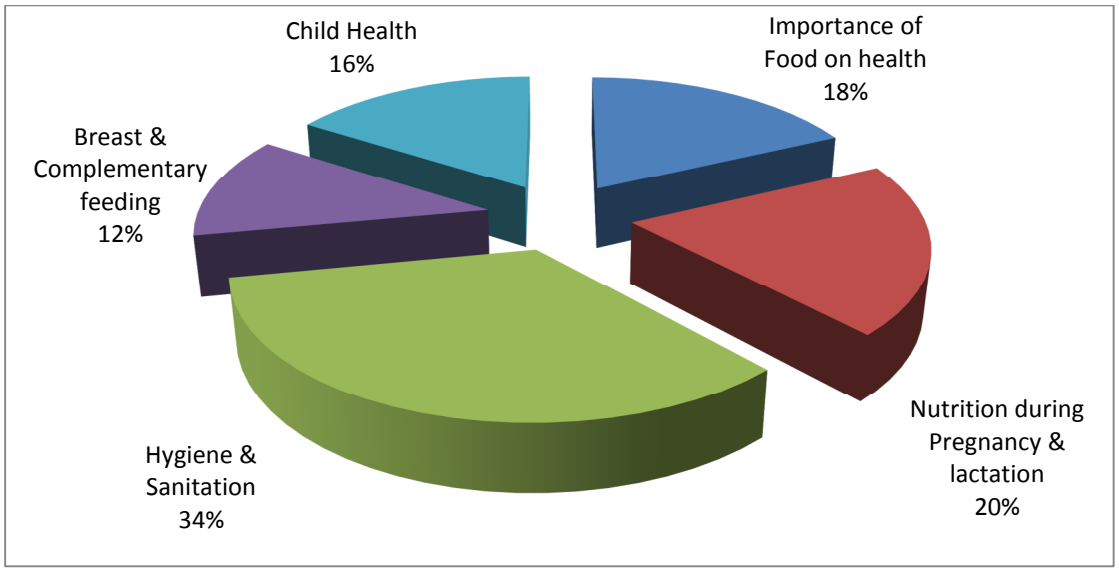

Figure 4.3. Types of Nutrition and Health Counselling for Caretakers by SMs & COWs.

As per available data, the districts of Swat and Charsadda surpassed the others in conducting the greatest number of sessions and mobilizing people to attend. This degree of success was attributed to an integrated approach of merging CMAM with other programs, more highly skilled staff, and greater availability of IP resources.

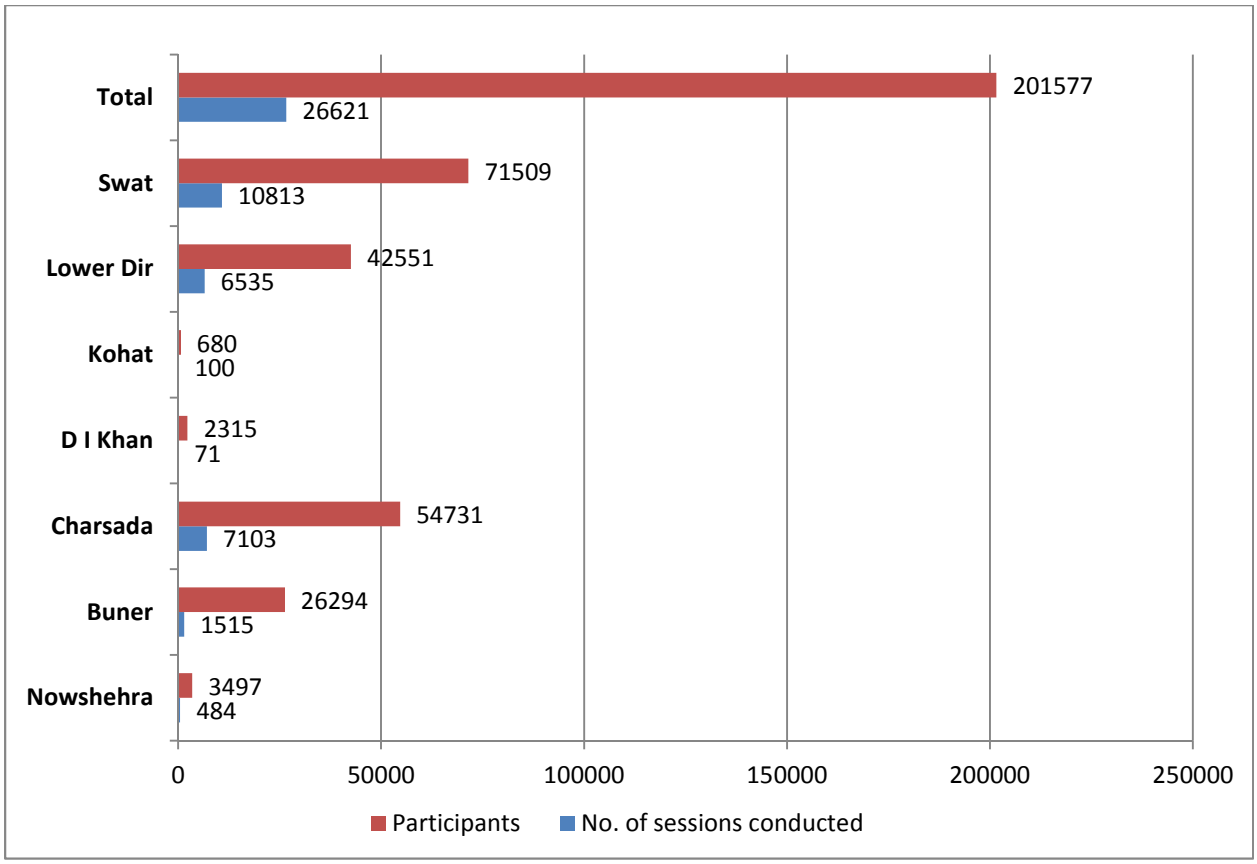

Figure 4.4. Nutrition sessions conducted and attending participants.

One of the programme managers endorsed the work performed by the CHWs by saying:

> *"The hard work of my team and the other implementing partners brought a behavioural change in communities and turned the CMAM programme into a success story."*

4.2 Outpatient Programmes for Treatment of Severe and Moderate Acute Malnutrition (OTP & SFP)

In KP, the Supplementary Feeding Programme (SFP) for MAM management and the Outpatient Therapeutic Programme (OTP) to treat SAM are operated in the same sites. (Thus, the discussion in this section regarding quality of services and programme performance includes both SAM and MAM services although they are regarded as separate components of CMAM. Other issues regarding MAM management are discussed below in a separate section.) The evaluation team visited twelve SFP/OTPs in seven districts. [35] On average, each CMAM centre (SFP/OTP site) covers about 30,000 children in the catchment area.

[35] These centres are: Nisatta in Charsadda District; Rashakai in Nowshera District; Dera Dehat I and Ratta Kulachi in D.I.Khan District; Nusrat Khel in Kohat District; Gul Bandai in Buner District; Khawazakhela, Baidara and Charbagh in Swat District; Timergara, Rabat and Chakdara in Lower Dir District

4.2.1 SFP/OTP Capacity and Services

All the visited SFP/OTP centres were located in government health facilities varying from the level of Civil Dispensary (CD), Basic Health Unit (BHU), Rural Health Centre (RHC), Tehsil Head Quarter Hospital (THQH) to District Head Quarter Hospital (DHQH). Nine of the facilities were located in rural areas while three were in urban areas. Since SFP/OTP centres were established in pre-existing health facilities, most of those facilities were also providing primary health care services such as the Expanded Programme on Immunization (EPI), Infant and Young Child Feeding (IYCF) and Family Planning (FP).

Some of the issues regarding the site management were the following.

- In nearly all the sites, the SFP/OTP in the health facilities lacked proper waiting areas, and the space was insufficient to accommodate children and their caretakers. The SFP/OTP centres located in the Civil Dispensaries (e.g. Dera-Dehat, Ratta Kulachi, Rabat, DHQH Timergara) were limited to 1-2 small rooms which became too hot particularly during power failures and in hot weather.
- The sites lacked play areas for children.
- The guidelines availability or display of IEC material was weak in almost all the SFP/OTP centres.

On the basis of MUAC measurements, children meeting criteria for MAM and SAM were registered and ID numbers issued. Appetite tests were performed effectively. Following the development of the *Pakistan National Guidelines for the Management of Acute Malnutrition* (2010), two weeks ration of RUSF and one week ration of RUTF were given to caretakers of children with MAM and children with SAM, respectively. Children and their parents were scheduled to report for further examination at the SFP/OTP and obtain additional supplies of RUSF or RUTF. The mothers and fathers interviewed attested to children's acceptance of both RUTF and RUSF. Most of them considered the RUSF and RUTF as health-giving and a significant number of mothers interviewed considered them as medicine. Fathers noticed that their own efforts to treat malnutrition through food and medicine were not as effective as the RUTF.

The following issues were noted.

- A majority of the anthropometric measurements observed at SFP/OTPs (taken by government and IP staff) were not accurate, although performance varied by site. One problem is that the MUAC tape was either too loose or tight which affected readings.
- There was a lack of consensus on using standardized criteria for admission of SAM cases in all the facilities visited. While the SFP/OTPs relied on the MUAC, the SCs use the weight-for-height Z-score. Although both guidelines are acceptable for admissions, in reality the two different anthropometric indicators (MUAC vs. weight-for-height Z-score) yielded different results in terms of admissions with SC staff admitting on the basis of WHZ but not MUAC.
- Nutrition counselling was not happening on a regular basis.
- There was inadequate referral and treatment of children with moderate acute or severe acute malnutrition with medical complications particularly in D.I. Khan because of the absence of medical doctors in the health facilities and insufficient medical supplies.
- The non-responder's follow up was very weak at centres of Rabat, Gul Bandai and Dera Dehat I.
- Documentation of deaths and defaults was not properly maintained in some centres.

"There is a need to pay more attention to the quality issues of the CMAM before it could be transformed into a non-emergency regular nutrition programme in Khyber Pakhtunkhwa". Programme Manager.

"We also need a monitoring system well managed from top to bottom, involving UNICEF and the other implementing partners. At this point in time we have achieved great expansion in KP and at country level, but we have now to focus more on quality in order to reach the need of the population". Programme Coordinator, Islamabad.

The weak quality of some services, data collection and documentation would affect the overall indicators of performance of the program. Efficiency in admissions to SFP/OTPs and SCs was probably negatively affected by inaccuracies in anthropometric measurements and need for greater quality in medical examination. There must be uniformity and consistency for screening and admission and agreement on how the WHZ or MUAC should be used.

4.2.2 Admissions in SFP and OTP

Most of the children admitted in the SFP/OTP sites were between 6 and 23 months of age, confirming vulnerability to malnutrition in this stage of development which often involves introduction of complementary foods and therefore exposure to pathogens. Most children were referred from household screening. Infants less than 6 months of age with acute malnutrition were admitted in the SC and treated as per the WHO protocol. When planning future programs, efficiency may be increased by focus on this age range and paying more attention to caretakers of infants so that malnutrition can be avoided during introduction of solid foods and weaning.

Promotion of IYCF through Lady Health Workers who are well trained in nutritional assessment and counselling is also critical. The work burden already placed on the LHWs is recognized and therefore a feasible approach would involve increasing the number of LHWs or hiring them specifically to focus on the most vulnerable children, both of which are likely to be cost effective.

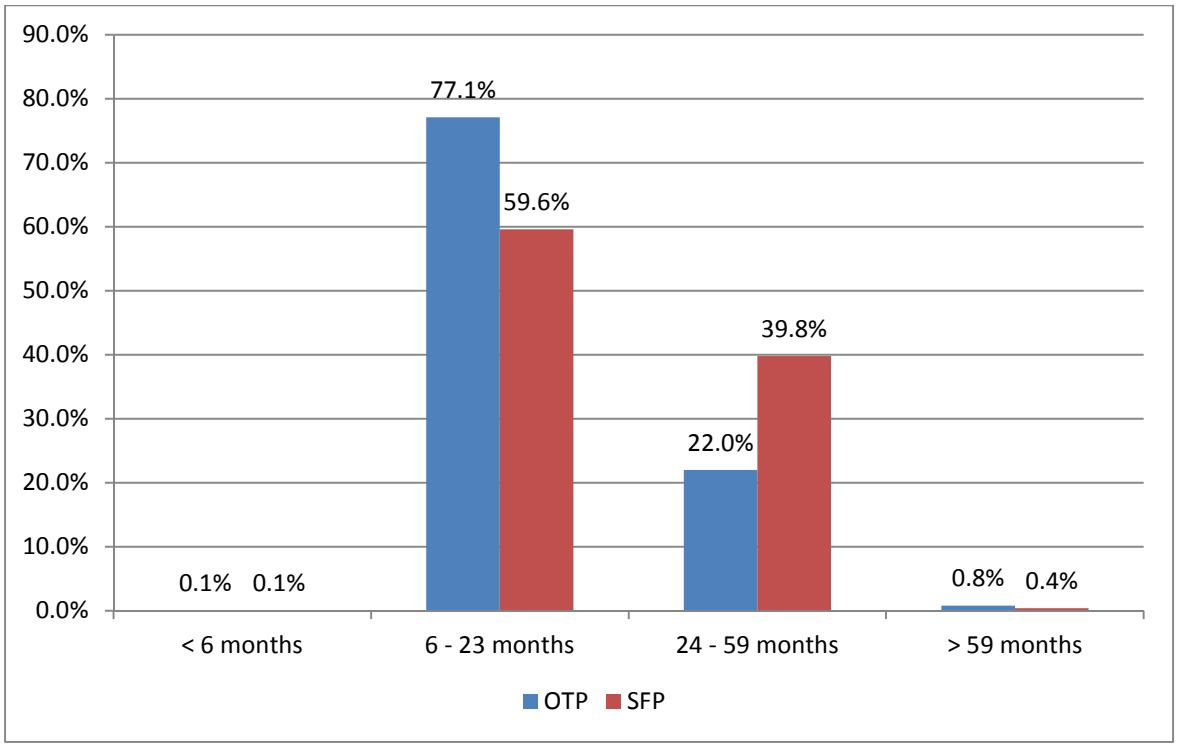

Figure 4.5. Admission in SFP/OTP according to age groups.

4.2.3 Performance of SFP/OTP Compared to the Sphere Standards

Both the SFP and OTP services achieved the Sphere standards in terms of cured, default, and death rates. The length of stay (LOS) standard was not achieved in either service. The average weight gain (AWG) in both SFP and OTP was significantly below the Sphere standard. (See Table 4.3). Although coverage data is not available, coverage is one of the performance indicators.

For OTP, all districts performed well in terms of cured, default, and death rate, however, all of them did not achieve the recommended average weight gain. Children spent more time in the programme than recommended in the districts of D.I. Khan and Swat (Table 4.4). For the SFP, the trend is good for cured, default and death rates. However, none of the districts achieved the average weight gain recommendation. For the length of stay, Swat was the only district that did not perform well (Table 4.5).

There is likely to be a number of reasons for poor performance in AWG and LOS. General issues are weaknesses in programme planning in the emergency situation and inadequate monitoring of compliance with RUSF/RUTF administration requirements. As mentioned above, inconsistencies in taking anthropometric measurements would affect the accuracy of data collected and used to determine average weight gain. There may be a tendency for children to remain longer on the programme if the weight gain is not effectively collected and recorded and thus shown to be inadequate for discharge. For some districts such as Swat, the follow-up was difficult due to remoteness of some areas and challenging topography.

Table 4.3: Overall performance indicators for OTP and SFP

	Sphere standards	OTP	SFP

Cured	> 75%	91.5%	95.3%
Default	< 15%	7.5%	4.2%
Non cured	-	0.8%	0.5%
Death	< 10%	0.2%	0.0%
LOS	≤ 60 days in OTP ≤ 90 days in SFP	70 days	71.5 days
AWG	> 5g/kg/d for OTP > 3g/kg/d for SFP	2g/kg/d	1.75g/kg/d
Coverage	> 50% (rural), > 90% (camp)	Not Available	Not available

LOS: Length of stay; AWG: Average Weight Gain

Table 4.4: Performance Indicators of OTP

District	**Cured**	**Default**	**Non cured**	**Death**	**LOS**	**AWG**
Buner	87%	11%	2%	0%	69	-
Charsadda	95%	5%	0%	0%	68	2
D.I. Khan	85%	13%	1%	1%	92	2
Kohat	93%	6%	1%	0%	53	2
Lower Dir	97%	3%	0%	0%	54	-
Swat	92%	7%	1%	0%	84	2
Average Total	**91.5%**	**7.5%**	**0.8%**	**0.2%**	**70**	**2**
Sphere standard	**> 75%**	**< 15%**	**-**	**< 10%**	**≤ 60 d**	**> 5g/kg/d**

LOS: Length of stay; AWG: Average Weight Gain

4.3 Stabilisation Centres (SCs)

There are six fully functional SCs in KP while five others are operating but in the process of being refurbished. One SC per district is the standard and there are 24 districts in KP, however, before the remainder can be established supplies of F-75, F-100, and RUTF need to be ensured. The SCs have been established in the paediatric wards of government-run hospitals with the support of UNICEF and WHO. The evaluation team collected data at seven of them (four teaching and three non-teaching hospitals).[36] Although all the SCs were established in the heart of cities with clear access routes, parents faced access constraints related to the distance from the OTP centres, cost of transportation and the time needed to reach the SCs.

All SCs are staffed with one or more professionals (e.g. Medical Officer, Paediatrician, Clinical Nutritionist, Nutrition Assistant, and Nurse) as well as supporting staff. Both teaching hospitals in Peshawar had separate SCs comprising six beds located inside the children's ward and had full-time Clinical Nutritionists and supporting staff. Both provide specialized paediatric services and were receiving children with SAM from all over the province. The Clinical Nutritionists were part of the hospital nutrition support team and were working under the Paediatricians.

[36] These SCs were Khyber Teaching Hospital (KTH) and Hayatabad Postgraduate Medical Institute in Peshawar, District Head Quarter Hospital (DHQH) in D. I. Khan, Liaqat Memorial Hospital in Kohat district, DHQ Teaching Hospital in Buner, DHQ Teaching Hospital Saidu Sharif in Swat, and DHQ Hospital Timergara in Lower Dir district

The strengths of the SCs were as follows.

- All SC staff, both IP and government, who were directly involved in the management of malnourished children were trained in CMAM by WHO and UNICEF.
- All SCs were well supplied with F-75 and F-100 therapeutic milks and medicines.
- The registration forms and formats were well placed and managed.
- The KTH SC offered examples of good practice by prominently displaying the CMAM guidelines, and having waiting areas for beneficiaries, a kitchen for preparing therapeutic diets, a children's play corner and outside open green area for taking children out in fresh air. It was also a good example in terms of separate space and bed allocation, adequate water availability, hand washing and clean latrine facilities. Job descriptions were well defined and displayed.
- Staff response towards the beneficiaries was positive and cooperative.

On average, each SC receives 20-25 children with SAM per month from Khyber Pakhtunkhwa and Afghanistan. Complications are treated as per the WHO standard protocols. There are no charges for hospitalization in SCs; the poor receive free medicines but other supplies may not be regularly stocked or may require payment. All other services such as diagnostic tests are free of charge. At discharge, caretakers are given nutrition advice and advised to return for a check-up. Caretakers do not receive meals at the centres.

Most SCs are not capacitated to efficiently collect program data; thus far, only the Peshawar SCs have been equipped with computers and other reporting supplies. Consequently, adequate data were not available to assess SC performance. The Pakistan guidelines for CMAM recommend 4-7 days stay in the SC. The complications should be stabilised within the first week of the admission in SC, then children are transferred to the OTP. According to the SCs, the average length of stay at the SC was 5 days, within the recommended time period.

The duties of the SC staff include maintaining and performing admissions, medical and nutrition protocols, follow-up visits, discharge and transfer protocols, counselling, documentation and reporting. The quality of some services depended on the length of time that the SC had been functioning, those functioning longer generally performed better.

- All the SCs were using weight-for-height <-3 Z-score as a cut off admission criteria for SAM.
- All of them were classifying children correctly by using the Z-score tables and plotting the weight and height measurements correctly on a growth chart of a child.
- Admission protocols were found to be efficiently followed at KTH, HMC and Buner.
- Counselling sessions were performed effectively at centres of KTH and Buner in comparison to other centres.
- Procedures regarding discharge were performed effectively.

Issues in referrals to and from SCs. Almost all children admitted at the SCs were received from the outpatient paediatric department of the hospital or referred from private clinics rather than from SFP/OTPs, indicating inefficiencies in identification and referral of complicated cases in the SFP/OTP. The referral cases to SCs from OTPs were only 233 (1%) of total OTP admissions in KP, signifying a very low turnover rate. The main reasons for lack of referral were the non-availability of a Medical Officer or Paediatrician in some of the OTP centres as well as long travelling distances to the SC.

Although the SCs were offering excellent nutrition services, there was neither a formal follow-up system nor a system of referral back to the OTP to continue treatment for SAM, and instead the children were

discharged as per normal hospital practices in all sites visited. Some of the SCs were established relatively recently and communication and coordination between the OTP and SC would require some time to develop.

> *"The link between the SFP/OTP and the SC is weak and needs to be strengthened. For a long term regular CMAM programme in the province, a lot more needs to be done to improve communication and coordination between the different components through establishment of good referral system from SFP/OTP to SC and back to SFP/OTP centre for treatment, discharge along with proper documentation".* Programme Manager

4.4 Management of Moderate Acute Malnutrition (MAM)

According to the *Pakistan Guidelines for CMAM* (2010) the Supplementary Food Programme (SFP) targets children 6-59 months of age and pregnant and lactating women meeting the admissions criteria[37]. They receive routine dosages of Vitamin A, mebendazole and iron, and RUSF every two weeks. The sources of admissions in the SFP include moderately malnourished children referred from the community, those who have completed treatment in OTP, those who have been discharged from SFP and then meet the criteria for admission again or those who return after defaulting (both counted as new admissions), and those with complications that have been successfully treated and discharged from the SC.

The KP Department of Health, UNICEF, WFP and Implementing Partners (IPs) collaborate on distribution of RUSF, procured by UNICEF and WFP, as well as provision of health and nutrition education. Additionally, WFP has undertaken nutrition interventions which benefit moderately malnourished children and prevent MAM, although coverage is unclear. WFP provided general blanket food distributions for flood and conflict-affected IDPs in KP including fortified wheat flour with premix, a supplementary ration for children 6-59 months old, high energy biscuits for children aged 2-12 years as well as fortified vegetable oil to help address micronutrient deficiencies. KP also benefited from the "Promoting Safe Motherhood" program which provided vegetable oil and health messages in four pre and post natal stages, an initiative that ended in July 2011.[38]

Some quality analysis on MAM management is found above in the SFP/OTP section and the indicators are summarized below (see Table 4.5). The SFP performs similarly to the OTP possibly indicating that management and capacity of the centres contributes to outcomes for both components. For SFP, the trend is very good for cured, default and death rates. However, none of the districts achieved the average weight gain recommendation. For the length of stay, Swat was the only district that did not perform well.

WFP randomly samples the SFPs for its own programme monitoring purposes but performance data for KP is merged with other provinces. High MAM recovery rates using the RUSF are noted by WFP.[39] While there is strong coordination through the nutrition cluster, there is no evidence of joint WFP/UNICEF monitoring of the CMAM sites, however SFP performance data is entered into the NIS, which is helps to streamline the analysis and information sharing among the involved agencies. A number of interviewees felt that joint monitoring exercises among UNICEF, WFP, WHO, IP and donors would serve to create stronger synergy around the MAM management issues.

[37] Pregnant women in second and third trimester with MUAC < 210 mm; and lactating women with MUAC < 210 mm and with infants < 6 months.
[38] WFP, Health and Nutrition Interventions in Pakistan, 2011.
[39] WFP, CMAM Programme Analysis Highlights, September 14, 2010

Table 4.5: Performance indicators for the SFP

District	Cured	Default	Non cured	Death	LOS	AWG
Buner	91%	8%	1%	0%	71	-
Charsadda	96%	4%	0%	0%	68	-
D.I. Khan	93%	6%	1%	0%	85	3
Kohat	99%	1%	0%	0%	49	1
Lower Dir	99%	1%	0%	0%	54	2
Swat	94%	5%	1%	0%	102	1
Average Total	**95.3%**	**4.2%**	**0.5%**	**0.0%**	**71.5**	**1.75**
Sphere standard	**> 75%**	**< 15%**	**-**	**< 10%**	**≤ 90 d**	**> 3g/kg/d**

LOS: Length of stay; AWG: Average Weight Gain

A general question regarding MAM management is whether it is effectively preventing SAM through contributing to long term behaviour changes in IYCF. The guidelines mention four messages that should be communicated to women: hand-washing with soap before eating and after defecation; exclusive breastfeeding (for 6 months); introduction and use of appropriate complementary foods; and continued breastfeeding during illness. Pakistan has a national policy on IYCF, yet IYCF is not mentioned in the *Pakistan Guidelines for CMAM* (2010) although IYCF has been integrated into training programs.

Effecting behaviour change is particularly challenging given the fact that care practices are considered a significant predictor of malnutrition in Pakistan. The large numbers of moderately malnourished children in Pakistan may make SF prohibitively costly for scale–up, therefore a study should be done to determine the most effective approaches, such as combining counselling with local solutions for supplementary and complementary foods, or limiting SF to those closest to the SAM cut-off.

5. CROSS-CUTTING ISSUES

In this chapter, strategies and principles that support CMAM throughout the programme components are discussed in terms of quality of planning and implementation. These are management and coordination, equity, information and management systems, integration of CMAM into the national health system, integration of CMAM into policy and programs, capacity development, and UNICEF's technical and organizational support.[40]

5.1 Management and Coordination

Global guidance describes what management and coordination entail for CMAM: *"Existing health services and initiatives should be mapped and the programme planned with the relevant authorities and agencies to prevent duplication, build upon and strengthen existing structures and systems, and ensure that referral pathways, roles and responsibilities are clear."*[41] A nutrition survey, a causal analysis assessment and a health system assessment are recommended prior to start-up of CMAM.

As part of the emergency response to the complex crisis in KP, the nutrition response plan formed part of the *Pakistan Humanitarian Response Plan 2010*, an intersectoral plan comprising 12 sectors. Assessments were criticized by evaluators for being conducted in a piecemeal fashion without interagency coordination.[42] At the cluster level, WFP, WHO and UNICEF carried out assessments related to joint operational frameworks (e.g. the survival strategy). The *Early Recovery Priorities* report made food security a top (second to shelter) priority in KP and recommended a comprehensive food and nutrition needs assessment, which was not carried out.[43]

According to the *Pakistan Humanitarian Response Plan 2010,* the Nutrition Cluster aimed to provide nutrition support through community based and facility programmes, promote optimal IYCF, prevent micro-nutrient deficiency diseases, improve coordination, strengthen the monitoring system and local capacities, and integrate nutrition interventions into Primary Health Care. The Nutrition Cluster evaluation (September 2011) found that the appropriate coordination mechanisms were established including support for government response. Centrally, UNICEF has supported a nutrition sub-sector cluster coordinator within the Health and Nutrition Early Recovery Working Group.

The lack of initial rapid nutrition assessments in the wake of the flood emergency limited the ability of the Nutrition Cluster to develop targets and plan interventions.[44] Other challenges were security and access that limited the range of the programme, scarcity of nutrition infrastructure, and poor on-ground capacity amongst both the government and NGO's. Nutrition programme indicator categories were stipulated in the 2010 planning framework but specific goals were not mentioned; there were no further updated joint planning documents. The MoH with its partners might have participated in more integrated planning using common indicators. At provincial level the DoH and IPs struggled with setting realistic programme targets, e.g. for screening. A lesson is therefore that results based planning tools need frequent updating to set realistic targets based on assessment data to guide staff in monitoring progress toward achievement of program goals.

[40] Cross cutting issues covered follow the TOR; the section on integration into the national system was added based on interest from UNICEF staff and other stakeholders in the ensuing discussions
[41] WHO/WFP/SCN/UNICEF Joint Statement on CMAM, 2007
[42] Interagency Real Time Evaluation of the Humanitarian Response to Pakistan's 2010 Flood Crisis, DARA, Page 8
[43] *Early Recovery Priorities, Rising from the Inundation*, Government of KP (no date)
[44] Nutrition Cluster Evaluation, Pakistan Flood Response, September 2011, page 4.

The Flood Affected Nutrition Survey (FANS) assessment, coordinated by UNICEF in November 2010, was considered as an example of good practice in collaboration and partnership. The nutrition cluster succeeded in combining response with assessments ("active case finding" methodology) enabling the cluster partners to identify immediate needs and take proper action including through expanding CMAM.[45] Among the actors, UNICEF, WFP and WHO's thematic approach stood out as a good practice; these agencies also demonstrated more integration with national services due to pre-existing partnerships with line ministries.

The *InterAgency Real Time Evaluation of the humanitarian response to Pakistan's 2010 floods crisis* notes that KP demonstrated a comparatively better response than the southern provinces largely due to continued engagement of government organizations in disaster responses (e.g. the Kashmir earthquake 2005, displacement crisis 2009, and small scale disasters). The nutrition response was also facilitated by the provincial Nutrition Cluster working in KP since the earthquake response in 2005, and UNICEF-supported coordinators and information officers. The FANS indicated that the presence of CMAM in many flood and conflict affected districts of KP since 2009, may be a factor in preventing serious levels of GAM.

Community Management of Acute Malnutrition must have a contribution in keeping malnutrition rates checked and providing a safety net for the food deficient flood affected households.[46]

Many interviewees confirmed that joint coordinated planning among the government, UN and IPs for nutrition interventions needs to be stronger in terms of both preparedness and response, and conducted in collaboration with other sectors. The need for stronger planning is reflected in the non-achievement of some of the Sphere standards, uneven capacity among districts, and the gaps in performance data resulting from lack of a strong system among stakeholders to steer the programme through consistent monitoring, as discussed in Chapter 4. Among the cluster participants, many of them spend a great deal of their time on CMAM, yet the principles which the cluster is advocating for, integration with national systems and among the sectors, had not fully taken root as evidenced by lack of common indicators and resistance of agencies to integrate their own planning with others.

5.2 Equity: Gender Equality and Reaching the Disadvantaged, Vulnerable and Less Reached

Most bodies of guidance and standards for CMAM, both global and national, do not adequately integrate gender equality and equity and these principles are implied rather than explicit and not detailed in terms of practice. Pakistan's constitution gives equal rights to both women and men but in some areas, male permission is required for women's movements outside of the home. In households there may be disparities in intra-household distribution of food and care among boys and girls.

Emergency response planning in 2010 highlighted gender concerns in KP and other areas of Pakistan and funding proposals, sitreps and reports mention gender-related issues. The *Pakistan Humanitarian Response Plan of 2010* described the impact of the conflict and floods on both men and women. Many men became responsible for greatly increased numbers of dependents in reduced and impoverished circumstances. Many women and girls faced formidable tasks in unfamiliar surroundings and some even became bread earners for the family. Low levels of literacy, insecurity in remote areas, limited income opportunities, large numbers of children and heavy home management burdens, among others, may cause low participation of women in developmental activities. Women are playing important roles as Lady Health Workers (LHWs), as teachers, and in the medical profession, among others.

[45] Interagency Real Time Evaluation of the Humanitarian Response to Pakistan's 2010 Flood Crisis, DARA, Page30
[46] FANS survey, DoH, UNICEF and ACF, 2010, page 12

In the 2010 flood response, UNICEF and partners incorporated gender equality considerations in project designs, including for WASH activities, gender sensitivity sessions for Lady Health Workers, and targeted safe spaces for women and children. UNICEF supported a gender and child cell within the National Disaster Management Authority in late 2010, throughout the response and application of gender markers to the P*akistan Flood Relief and Early Recovery Response Plan (*PFRERRP) and encouraged disaggregation of data by sex and age, which strengthened strategic gender equality practice. The Government of Pakistan has allocated financial incentives to the LHWs who were previously unpaid.[47]

CMAM Implementation from a Gender Equality Perspective

The gender-related problems that could be anticipated in CMAM include the seclusion of women which might restrict their participation in response activities if male permission was not forthcoming, and a nominal level of female staff among service providers who could access women and children in their homes. For KP, these reflections were not totally considered in program design and a too-rapid incursion into communities for screening resulted in resistance and IPs re-planning a more prudent community outreach strategy. Also, stronger strategies were needed to address sensitivities to the roles of Community Outreach Workers and facilitate their access to women and children. .

As part of assessments, gender and equity analyses are important to inform programme design and to identify groups which require extra attention. The Nutrition Cluster Evaluation of the Pakistan Flood Response (2011, page 29) noted: *Partners at both national and at hub-levels commented that there was lack of integration of cross cutting issues in needs assessments or in the overall cluster response plan. "Because of a "lack of awareness and understanding on the different social and cultural difference and lack of resources, some vulnerable members of community did not receive what they needed".*

The FANS revealed that a higher percentage of girls (9.3%, 8.3%, 1.2%) were acutely, moderately and severely malnourished than those of their corresponding age boys (5.2%, 4.5%, 0.7%), although the difference was not considered to be statistically significant.[48] Similarly, amongst the screened children in six selected districts of KP, a higher percentage of girls than boys were admitted in SFP and OTP (Table 5.1) demonstrating higher prevalence of malnutrition in girls and supporting the findings of the FANS (2010).

Table 5.1 Distribution of children screened and admitted in SFP and OTP by Gender

District	Screened				SFP		SFP		OTP		OTP	
	Boys		Girls		Boys		Girls		Boys		Girls	
	No	%	No	%	No	%	No	%	No	%	No	%
Buner	12568	51	12006	49	1991	43	2590	57	461	37	768	63
Charsadda	22902	48	24555	52	3571	43	4814	57	706	37	1184	63
DIKhan	30683	49	31468	51	3148	45	3883	55	755	46	898	54
Kohat	12962	51	12620	49	377	38	624	62	109	36	193	64
Lower Dir	71405	49	73345	51	12072	45	14647	55	2051	39	3200	61

[47] UNICEF, Children in Pakistan –One Year after the Floods, July 2011.
[48] Department of Health/UNICEF/ACF. Flood Affected Nutrition Survey of Khyber Pakhtunkhwa Province, Pakistan 2010

Swat	73310	48	79186	52	4643	44	5986	56	898	38	1465	62

A higher percentage of girls screened and admitted in SFP and OTP also suggest that there was no bias or gender discrimination in CMAM. The programme reached some of the most vulnerable children as all the selected districts and IDP camps were either flood or conflict affected. The health facilities used were mostly located in remote rural areas of the districts where well to do families rarely visit for medical treatment. [49]

Possible equity issues and ways that equity can be more effectively promoted are as follows.

- CMAM was implemented in more easily accessible areas, not reaching all of the most food insecure areas of KP so it is likely that some of the most vulnerable children were not included. As mentioned elsewhere in the report, mapping and prioritization for scale-up of CMAM in KP is critical.
- Due to increasing economic migration HIV is an issue of concern in Pakistan as it is spread by migrant workers, however, it is nearly impossible to identify HIV/AIDS positive individuals due to cultural stigmas. The UNICEF nutrition programme includes supporting HIV/AIDs families and is planning to use NGOs as entry points for identifying HIV/AIDS children in SCs and thereby their parents.
- Treatment coverage in CMAM sites could not be clearly ascertained and qualitative interviews indicated that some family heads did not permit mothers and children access to CMAM services despite community sensitization. These families require follow-up by the community health workers for screening and IYCF counselling at home.
- Not all categories of data on CMAM performance were gender disaggregated and data on relapses do not exist thus gender and equity related reasons for some achievements or lack of sustainable results are not clear.
- Since a reported 50% of health care in Pakistan is provided by private clinics, the role of these clinics in identification of malnourished children and treatment by private health care staff or referral to CMAM should be discussed in assessments. Planning should cover means to include private health care providers in CMAM implementation particularly community outreach in order to increase demand for CMAM services.
- Many of the women Community Outreach Workers who were employed by IPs need more in-depth capacity development to ensure their understanding of the principles of nutrition and use of anthropometric measurements.
- Women health workers require special programmatic support in societies where male permission is needed to gain access to mothers and children. Community outreach was more successful in areas where good programme management gave sufficient resources and training to the COWs and facilitated their access.

5.3 Information, Monitoring and Reporting Systems[50]

The Ministry of Health in Pakistan has operated a Health Information Management System (HMIS) since 1991, however, some projects such as CMAM are tracked through separate systems and not integrated into the HMIS. The Nutrition Information System (NIS) was developed in 2010 for the purpose of tracking CMAM programme performance by the implementing partners who facilitate data transfer with some

[49] UNICEF (2010). Annual Report MCHC Khyber Pakhtunkhwa and FATA. UNICEF, Peshawar
[50] Sources: Report by Shameza Abdulla, Emergency Specialist, 3 months Surge Support, IM Manager Nutrition Cluster, Pakistan Mission from 1 Oct- 29 December 2010, and interviews

oversight by UNICEF. Monitoring was carried out by the IP project coordinators and team leaders, District Health Officers from the Department of Health, and Nutrition Officers from UNICEF, WFP and WHO. Interagency monitoring helped to promote results-oriented activities under difficult circumstances. For the purposes of sustainability and scale-up, consideration must be given to greater integration of the NIS into the national systems and ensuring capacity building of the national staff.

From a technical point of view, the NIS in KP has been well developed with an entire software package for implementing partners to use on a daily basis for their own monitoring and to report to the Nutrition Cluster. The NIS roll-out started in February 2011 for the other provinces, such as Sindh. To assist in the roll out, manual tools were developed as per the CMAM protocols to reflect the different entry and discharge criteria to familiarize partners with the CMAM reporting requirements and build their capacity for reporting.

Sample registers and tally sheets were used as tools for implementing partners to use "on site" and provide a basis for their respective field coordinators to collect accurate data to be entered and reported in the NIS. The monthly report formats required for CMAM (for WFP/UNICEF) are imbedded in the NIS and allow both agencies to monitor the quality and volume of implementing partners work, supply usage and stock balances and also to report more accurately the use of funds. Importantly as users of the NIS system, WFP as a partner in the treatment of MAM through the implementation of SFPs is using the system as well and it should give good indication of the performance of the SFP. WFP also conducts its own monitoring visits and reports to donors and other stakeholders in its own format.

The Global Mapping Review of CMAM (2011) points to lack of consistent information in most countries. In Pakistan, some donors wanted more comprehensive data-based evidence on which to make their programmatic decisions, although overall, confidence in the NIS has helped to promote health and nutrition activities in other provinces. The largest challenge continues to be the quality of data from CMAM sites, in terms of ensuring accuracy of reports, and overall compliance with CMAM protocols. Some facilitating factors include the relationships established between cluster partners and information managers (IMs) which have fostered coaching and training of partners not just on reporting of nutrition data (related to feeding programmes) but are also means by which UNICEF has been able strengthen coordination and verify compliance with CMAM guidelines. With the transition from Small Scale Funding Agreements (SSFAs) to full PCAs, it was possible to require IPs to include a dedicated reporting and data entry officer as well as provide support for IT equipment and software.

The major problems with data quality include difficulty in verifying data and how to ascertain whether collection and analyses have been properly performed. The analyses by CMAM component above (Sections 4.1–4.4) have indicated some quality problems in procedures to collect data as well as programme data which are not consistently tracked and therefore not able to be analysed effectively to demonstrate performance. Furthermore, effective tracking of indicators is highly dependent on having good baseline data and population estimates. Some issues assessed through site visits are:

1. Inconsistent population data to estimate coverage through screening and for programme planning to set screening and other programme targets
2. Inconsistency in adopting anthropometric indicators (MUAC vs. Weight for Height Z-Scores) in screening and admission in Stabilization Centres (SCs)
3. Insufficient staff knowledge, skills and experience to accurately collect and record data
4. Weak linkages and communication between the IPs/SFP/OTP staff and SCs
5. Poor documentation of deaths and defaults, and lack of relapse data, for SFP/OTP centres which affect ability to investigate reasons for sub-standard performance if necessary

6. Gaps in data on performance of SCs including stabilization rates, death rates, and average weight gain.

The *Pakistan National CMAM Guidelines* (2010) specifies some steps for monitoring and tracking children, mainly procedures for completing forms and monthly reports.[51] Reporting on results of monitoring visits and information exchanges has improved in quality and detail regarding constraints. Monitoring was formerly limited to the quantitative level in the SFP/OTP and SCs and checking records and displays of IEC material. However, some issues such as interruption of supplies, and need for more anthropometric equipment and women COWS were not fully reported and addressed. The UNICEF office in Peshawar currently maintains a record of field monitoring reports and action plans to be updated weekly. A constraint to monitoring and planning to improve the quality of service in the long term is the short term nature of funding for the IPs and working on a project rather than on a programme basis. Regular reviews of performance and periodic evaluations are needed for feedback into programme design and should be planned in the early stages with resources allocated.

5.4 Integration of CMAM in the National Health System and National and Local Ownership

A major goal of CMAM globally and nationally is ensuring sustainability by integration of the activities and logistics into the national health systems. However, there are no global standards for integration and there is no commonly accepted definition of integration into national health systems. The Global CMAM Mapping Review (2011) recommended the following: ***Develop integration indicators****: that demonstrate progress into health initiatives including Integrated Management of Childhood illness (IMCI), HIV/AIDS and tuberculosis, incorporation into annual health plans, health financing, pre-service training for doctors and nurses, etc. National budgets allocated to SAM could also be useful.*

This section looks at integration as specific interventions that increase access to health systems and improve outcomes. The presence of both integrated and non-integrated CMAM programmes in many countries suggests that there may be benefits to either approach, but the relative merits of integration in various contexts and for different interventions have not been systematically analysed and documented. Adoption, diffusion and eventual assimilation of a health intervention into a health system necessarily involve their alignment of intervention elements with critical health system functions.[52]

Stakeholders overwhelmingly agree on the urgent need to integrate CMAM more effectively, citing the strengths and further potential of the health delivery system in Pakistan. Challenges for CMAM in Pakistan are to determine to what degree it should be integrated, how it can best be integrated and then setting appropriate goals for management. The following discussion indicates that CMAM in KP has partially integrated into the health system i.e., stabilization centres are all located in the tertiary public hospitals and are run with the assistance of donors. Major barriers are the overall weak integration of nutrition into the health system, lack of an operational provincial nutrition policy and implementation of nutrition programmes in bits and pieces, CMAM being one example. Indications of a basis for further

[51] National guidelines for the management of acute malnutrition among children under five and pregnant and lactating women, pages 47-52.

[52] This evaluation develops a framework for judging integration of CMAM which is based on a number of publications. The main framework and theory is evolved from the following documents: Rifat Atun, Thyra de Jongh, Federica Secci, Kelechi Ohiri and Olusoji Adeyi. "A systematic review of the evidence on integration of targeted health interventions into health systems." September 2009. Rifat Atun, Thyra de Jongh, Federica Secci, Kelechi Ohiri and Olusoji Adeyi "Integration of targeted health interventions into health systems: a conceptual framework for analysis", September 2009.

successful integration are the 18th constitutional amendment which has designated financial and administrative powers to the provinces, resulting in the restructuring of the KP Department of Health.

For the purposes of discussion of integration of CMAM in the national health system, the elements related to critical health systems intervention include: 1) Governance; 2) Planning; 3) Financing; 4) Service delivery; 5) Monitoring and evaluation; and, 6) Demand generation.

1. Governance (e.g. accountability, reporting, performance management, coordination). Full integration occurs when the governance arrangements for the intervention are similar to those for the general health services or for the local/national administrative structures. In KP, most governance arrangements were created specifically for the CMAM intervention; coordination responsibilities were shared but accountability, reporting, and performance management was largely assumed by the IPs, UNICEF, WHO and WFP.

2. **Planning** (e.g. needs assessments, priority setting, resource allocation). Full integration occurs when decision-making is undertaken by the stakeholders who are involved in the same tasks for the general health system. Partial integration as in Pakistan, occurs when the decision-making responsibility involves a range of stakeholders such as donors and civil society representatives and focuses more on the intervention rather than on the general health care activities. The government has not been fully involved in needs assessments. There is a need for greater involvement of local NGOs and civil society. Policy is becoming more conducive to mainstreaming nutrition in the regular health program as evidenced by the PINS. The pilot implementation of the Integrated Nutrition Programme (INP) in seven health facilities in Mardan district in KP, with CMAM as the core component, should be very influential for mainstreaming nutrition.

3. Financing (e.g. pooling of funds, revenue generation). Full integration occurs when the intervention is funded entirely through the national or regional general health care budget. The health delivery system in Pakistan has contributed infrastructure and human resources to CMAM, however, the recurrent costs are largely supported by external donations. Direct funding to IPs may constrict progress toward integration unless funding is contingent on IP progress towards strengthening national systems as evidenced through tracking programme indicators. Strong advocacy is required to sensitise the government and elicit political support for nutrition interventions in KP, particularly with the Planning and Finance Departments, to highlight malnutrition as a key health problem and allocate appropriate funding.

4. **Service delivery** (e.g. infrastructure, human resources, operational integration, referral systems, guidelines, procurement, and supply chain management). Services are considered to be fully integrated if their provision is the responsibility of the general or multi-purpose health workers. Partial integration in Pakistan is indicative of shared responsibility between general health workers and the CMAM staff.[53] Although existing health centres and hospitals housed the CMAM activities, CMAM is not well integrated into activities of the health facility and teamwork among national staff, who reported to the MoH, and CMAM staff, who reported to the IPs, was not strong. The relationship between the IPs and DoH was seen by some to be largely ceremonial.

The PINS envisions a roadmap for vertical integration of all nutrition programs into the health care system. The LHWs and other medic and paramedic staff can shoulder the responsibilities of community outreach and at the hospitals, CMAM roles can be shared among health workers who perform multiple tasks. The government has supported LHWs by giving them salaries instead of asking them to work

[53] The IMCI strategy is a good example of partial integration where interventions for management of a number of childhood illnesses are bundled (Bryce J, Victora CG, Habicht JP et al. Programmatic pathways to child survival: results of a multi-country evaluation of Integrated Management of Childhood Illness. Health Policy and Planning, 2005, 20 (Suppl. 1): I5–17.0), but can be administered either separately through community workers trained exclusively in IMCI or through PHC facilities using general staff.

voluntarily as was previously the case, thereby increasing their motivation to effectively carry out their roles, a plus for successful CMAM.

5. **Monitoring and evaluation** (e.g. information technology infrastructure, data collection and analysis). The M&E function of a health intervention was considered to be fully integrated if the responsibility rests with institutions that retained overall responsibility for M&E in the health system. In Pakistan, although the staff of the DoH participates in monitoring, the bulk of the data collection responsibilities are undertaken by IPs and the UN partners. A greater degree of coordination is required between stakeholders to review programme performance and issues and steer the program forward and this aspect is being strengthened through the Nutrition Cluster.

6. **Demand generation** (e.g. incentives, prevention, advocacy, population interventions – education and promotion, community mobilization and sensitization). Demand generation was considered to be fully integrated if mechanisms used to create incentives or IEC activities were provided jointly with the general services or were delivered by PHC workers. Demand for CMAM is fostered by the community outreach activities and free provision of services and RUSF/RUTF; greater integration should promote demand for other health services. The involvement of the private sector in CMAM is crucial for combating malnutrition as private sector actors could play a pivotal role in sensitizing communities, counselling and behavioural modifications.

To promote the importance of nutrition on a national and continuous basis, academia must be involved to develop curricula for undergraduate medical and allied health students on community management of acute malnutrition as well as developing short training courses, materials and teaching aids for healthcare providers. Inclusion of nutrition as a subject in medical curricula as well as changes in nutrition syllabi of undergraduate Food and Nutrition degree programmes offered in different parts of the country would be vital for increasing awareness, promoting healthy feeding and dietary practices and reducing malnutrition.

5.5 Integration of CMAM with Policy and Programs

As described in the background of this report, institutionalization of nutrition has occurred rather recently in 2008 and nutrition structures have remained weak at national, provincial and district levels. The lack of significant improvement and decline in nutrition indicators in the past decades has resulted from insufficient government commitment and weak coordination among nutrition projects and programs. Without an overarching national strategy for nutrition, CMAM may remain as an emergency intervention that is largely unsustainable and difficult to coordinate towards an effective response. The *Nutrition Cluster Evaluation, Pakistan Flood Response* (September 2011) has concluded:

> *"….despite several UN agencies and NGO's being present in the country at the time of the floods, a* ***lack of over-arching nutrition policy and strategy has resulted in an absence of clear coordination and strategic approach to Nutrition programming amongst agencies,*** *which weakened the Cluster partners efforts when trying to reach the most vulnerable" .* Page 5

The *Pakistan Response Initial Floods Emergency Response Plan* (PRIFER) and the subsequent Pakistan Flood Relief and Early Recovery Response Plan (PFRERRP) were integrated approaches which prioritized areas for WASH, food security, health and nutrition to be delivered through existing facilities and services. The *Nutrition Cluster Evaluation, Pakistan Flood Response* (September 2011) found that while the four clusters developed the cross cluster "survival" strategy, it was not fully demonstrated in the coordination hubs.

To promote sustainability, effectiveness and efficiency, all activities contributing to the wellbeing of the CMAM target group need to be integrated and well-coordinated to avoid overlap and duplication. There

are risks involved in integration particularly since project outputs may be more difficult to measure and for results to be attributed to the inputs of the program. The Joint Statement on CMAM (2007)[54] promotes integration with programs which address HIV/AIDs and saving children's lives through*:*

> *"Integrating the management of severe acute malnutrition with other health activities, such as: preventive nutrition initiatives, including promotion of breastfeeding and appropriate complementary feeding, and provision of relevant information, education and communication (IEC) materials, and with activities related to the Integrated Management of Childhood Illness at first level health facilities and at the referral level, and initiating such activities where they do not exist."*

The Pakistan Integrated Nutrition Strategy (PINS, 2011) is built upon conceptual integration, programmatic complementarity, and geographic convergence. The strategy works through a combination of agricultural/food, WASH, health and nutrition activities. It focuses on direct and indirect multi-sectoral interventions and furthermore including household food security nutrition sensitive and specific interventions, hygiene and sanitation and mother child health services. It furthermore includes the following: conditional social transfers, livelihood generation, small business enterprises, local marketing, income generation, adolescent girls' education, advocacy for province nutrition budget, training for CMAM, the NIS, monitoring, surveys, evaluations supply chain management, and integrated nutrition policy, strategy and guidelines.

The PINS strategic framework has been well accepted by stakeholders, will need to be transferred to provinces and requires and a joint implementation plan including indicators. Above and beyond this, the government of KP needs to demonstrate its commitment to a nutrition strategy. Complete costing needs to be carried out, to create in-depth understanding of all intrinsic and external costs involved in the establishment and continued operation of the programme. Assessment of staff availability and staff time allocation at all levels would help to identify obstacles to for execution of regular and additional job tasks and promote an understanding regarding the challenges of CMAM implementation within the national health system.

Under PINS Area 1: For the prevention and treatment of acute and chronic malnutrition, the key intervention is CMAM integration with IYCF, increasing intake of vitamins and minerals through de-worming, Vitamin A and fortification of wheat and salt with iron and iodine, respectively. The provincial PINS strategy and implementation plan (2011) addresses the major causes of malnutrition in KP and FATA including: a) inappropriate IYCF practices; b) late initiation of breastfeeding by 59.5% c) minimum dietary diversity; d) deteriorating food insecurity - 58% are food insecure; e) household income minimal – subsistence; f) poor quality and insufficient amount of clean water; g) poor sanitation; h) early and frequent childbearing, and i) frequent emergencies.[55]

The KP/FATA PINS strategy envisions formation of Provincial Multi-sectoral Nutrition Board, that reports to the Provincial Chief Minister, as well as a high level Inter & intra-sectoral Provincial Nutrition Steering Committee. A tailored strategy for KP and FATA will be developed. Progress thus far toward the realization of the PINS includes the following.

- DoH already signed MoUs or work plans with partners WFP, WHO and UNICEF on nutrition response plans
- WFP has a partnership with DoH in mother and child health

[54] *Community Based Management of Severe Acute Malnutrition*, Joint Statement by the World Health Organization, the World Food Program, the United Nations System Standing Committee on Nutrition and the United Nations Children's Fund, 2007
[55] Powerpoint presentation, Pakistan Integrated Nutrition Strategy (PINS) in KP and FATA, November 29, 2011, Dr. Sharif Ahmad Khan, Department of General Health Services

- WFP, UNICEF & WHO have partnership/field level cooperation agreements with national and international NGOs
- PDMAs, DOH partner with ERWGs - Early Recovery Working Groups should transition to sector working group led by the government coordinating body
- FAO, WFP, WHO and UNICEF will develop MOUs stating the UN agencies roles.

The following are the recommendations extracted from the PINS that could be useful for future emergency and non-emergency (regular) CMAM programme in KP:

1. Advocate for leadership & commitment; give technical assistance to provincial governments to update/finalise nutrition PC-1s and provide budget allocations. Establish/support Government led Coordination.
2. Provide support to include nutrition into the practices of health care providers, and food security specialists, educational curriculum, post-graduate training.
3. Establish and/or reinforce common nutrition information, monitoring and evaluation system including nutrition surveillance system in all high risk (of malnutrition) areas.
4. Build national capacity to produce medically certified RUTF (already producing RUSF and FBF) by undertaking research to develop an appropriate RUTF and providing technical assistance to one or two food processing companies to produce products in bulk.
5. Build and develop multisectoral communication, coordination and cooperation for effective nutrition interventions in the province to combat malnutrition in children

5.6 Capacity Development and Training[56]

This section analyses the effectiveness of the contribution of CMAM to capacity building among nutrition and health professionals and community workers, and to policy and institutional development. The slow nutrition response to the 2010 flood disaster in KP was mainly associated with the limited in-country response capacity for malnourished cases identification, referral, management and the expected follow up, and this was also the case for scaling up CMAM. Further, there was limited capacity to promote infant and young child feeding. Although CMAM had been implemented in some areas since 2009, the *Pakistan National Guidelines for CMAM* were not developed until 2010 and training on the protocols had not been carried out in the flood affected districts.

Observations and interviews at the CMAM sites indicated that there is a large variation in the education and qualification levels of staff responsible for taking anthropometric measurements, registration and issuing of RUSF/RUTF. The variations are also due to geographical variations, ease of access and type of implementing partners (local versus INGOs). It is clear that the effectiveness of training and other forms of capacity development impact programme performance; interviews suggest that well qualified staff were a determining factor in delivering quality services.

In view of the shortages of qualified staff available to work in KP, some training was not enough to prepare inexperienced trainees to implement their roles in CMAM. The same course level, therefore, was not appropriate for all trainees. For those who lacked any background in health and nutrition, much greater sensitivity was required to successfully carry out procedures and address various health and nutritional problems. Weak areas should be identified through needs assessments and different level of nutrition education and trainings shall be imparted to improve the knowledge and skills of the field

[56] Sources: Nutrition Cluster Capacity Development Plan, December 2010, and interviews

workers. Simple objective questions may help in categorization of individuals into different levels and types of trainings.

In December 2010, the Nutrition Cluster set out a plan for intensive capacity development in order to strengthen local capacity for nutrition response, IYCF practice and its integration with CMAM, and Nutrition Cluster members' capacity to integrate the various nutrition and related sectoral interventions. Other objectives were to develop a pool of CMAM and IYCF facilitators to support the training, identify local institutions that could provide technical support and become centres of excellence and roll out the Global Nutrition Cluster supported Nutrition in Emergency Training (Harmonized Training Package). Some activities planned included: inter-province exchange of staff, updating the IYCF guidelines and then consolidating them with the CMAM guidelines and training experiences documentation. A Provincial Nutrition Directorate will be established in the Department of Health to oversee all nutrition programmes including CMAM and IYCF to facilitate training and ensure training standards.

In KP, between 2009 and 2011, over 800 health care providers from the government, including 321 Lady Health Workers (LHWs) and 93 enumerators, were trained in screening of children and over 300 members from the IPs were trained including 272 Community Outreach Workers. For implementing partners, 127 were trained on M&E while a large numbers of on-the-job trainings were also conducted. The government health care providers were also trained in identifying malnutrition and in administration of RUTF. Staff trained in 2010 required refresher training in 2011. Staff members praised the training successes as illustrated in this comment.

> *"The programme not only treated and cured hundreds of malnourished children but was also successful in producing a critical mass of community outreach workers and skilled nutrition manpower trained to deal with any eventuality and nutrition emergency in the country".* Programme Manager

5.7 UNICEF's Technical and Organizational Support

The role of UNICEF along with WHO and WFP is mentioned in the joint statement on CMAM and discussed in the six points below.[57] The role of UNICEF in CMAM in Pakistan is further defined in the MOUs and PCAs with government and partners.

1. **Mobilizing resources.** For nutrition response to the 2010 flood crisis, UNICEF was able to mobilize all needed funds by July 2011 except US$ 6.2 million needed to cover gaps identified by the FANS. UNICEF HQ and the ROSA (Regional Office in South Asia) sent high profile management including HQ and RO directors and significantly expanded the staff in the Country Office. UNICEF effectively provided surge capacity and technical support, for example, to start the Nutrition Information System (NIS) and support the nutrition cluster nationally and provincially. As the Cluster Lead Agency, UNICEF acted as a provider of last resort including coordination of the FANS, provision of necessary RUF products when WFP was unable to, as well as availability of human resources.[58]

   For scale-up to cover emergency and on-going needs for CMAM, securing funding will be a major challenge due to the immense needs and the variation in sources of emergency and development funding. The CO requires technical support from the HQ and RO to design CMAM expansion and stronger high level advocacy to secure funding commitments. This should go hand in hand with advocacy for national and provincial nutrition strategies and other means to promote efficiency. (See discussion in Chapter 6 under sustainability and scaling-up.)

[57] *WHO/WFP/SCN/UNICEF Joint Statement on CMAM*, 2007
[58] Nutrition Cluster Evaluation of Pakistan Flood Response, 2011, page 5

2. **Facilitating local production of RUTF**. Arguments have been made against local production in Pakistan as well as other countries, such as possible lower costs and more reliable supplies of imported products, nevertheless most interviewees threw their support to "made in Pakistan". Communities in KP indicated their preference for locally made products rather than foreign made and that could be key to faster acceptance of the programme and the products and possibly less wastage. WFP supports limited production of RUSF and FBF and interviewees were in favour of expansion of this effort. UNICEF, the MoH and other partners thus need to be more pro-active in promoting local production of the ready to use products and/or demonstrating to stakeholders the pros and cons of the various sources.

3. **Supporting nutrition protocols**. UNICEF has very experienced and knowledgeable health and nutrition teams in both Islamabad and Peshawar but they are stretched thin among programme demands. UNICEF needs to demonstrate its own commitment to nutrition and spend more time monitoring the CMAM sites and this could be most effectively accomplished through staff with nutrition expertise dedicated to CMAM management, supervision and well acquainted with programmatic issues. Similarly, data management issues, as described in Chapters 4 and 5 are major challenges to programme effectiveness and efficiency and dedicated staff is needed to verify information and reporting and ensure information communication between the DoH, IP field offices and the CO.

4. **Working with government, the private sector and NGOs.** UNICEF with the MoH led the development of the Pakistan Integrated Nutrition Strategy (PINS) and accompanying operational plan. However, one of the key recommendations of this evaluation is support for a national and provincial nutrition strategy for without this, the current picture of a lack of integration among nutrition projects and programmes is likely to continue. UNICEF and the MoH need to continue to exert strong leadership for supporting development of the provincial strategy and implementing the KP PINS. Encouraging stronger leadership will probably be more attainable in collaboration with other stakeholders.[59] Private sector health providers should be included by UNICEF and partners in coordination forums and community sensitization, as they can be a powerful force in reducing malnutrition.

   The rapid expansion of CMAM following the 2010 flood disaster and securing qualified human resources posed challenges to programme quality. Contracting IPs took too long and the short-term project approach with limited contracts for IPs (3- 6 months) was not advantageous to promote monitoring. The limited PCAs were thought to be reflective of lack of commitment to long term funding and planning and thus could adversely affect the performance of staff and have a negative impact on efficiency as they are always in search of better jobs.

5. **Conduct operations research to refine protocols**. For sustainable and effective CMAM, operational research is needed to tap the deficiencies and gaps highlighted in FANS and evaluation reports. The most important operational areas which need attention are: (i) capacity building of public and private sectors health care providers in nutrition (ii) nutrient dense product development (RUSF/RUTF); (iii) and strengthening and upgrading stabilization centres in rural and urban setups. UNICEF should design studies which identify effective ways to address MAM management through greater inputs to behaviour changes and feeding practices given the large numbers of MAM children as described in Chapter 4.

[59] Similar to recommendation from the Global Mapping Review of Community-based of Management of Acute Malnutrition (CMAM) with a focus on Severe Acute Malnutrition (SAM), UNICEF Nutrition Section, PD, New York, 2011, page 53.

6. **Jointly implement CMAM in emergency and non-emergency situations.** CMAM provided an opportunity to government, communities, development partners, UN, and NGOs, among others, to share their knowledge and expertise to reduce the sufferings of the flood affected people and to promote confidence in joint efforts. The potential of the partnerships continues to be realized and UNICEF should systematically work toward strengthening partnerships as mentioned in previous sections, through joint assessment, planning, and workshops to discuss and unify different approaches to addressing nutrition The MoH, UNICEF, WHO and WFP have varying approaches to address malnutrition; harmonization activities are necessary, such as workshops that promote a stronger joint capacity to achieve the goals of CMAM.

6. ANALYSIS OF CMAM PROGRAMME COSTS; SUSTAINABILITY AND SCALE-UP

This chapter presents an analysis of the CMAM programme costs. It also discusses issues affecting efficiency, such as the supply of the RUSF and RUTF, and sustainability and scale-up.

6.1 Cost Analysis

6.1.1 Shares of Capital and Recurrent Costs

This analysis of CMAM programme costs is based on 45 projects executed in Khyber Pakhtunkhwa. The government's contribution to CMAM has not been precisely calculated but is considered to be significant. Data regarding the capital costs associated with government hospitals (Stabilization Centres - SCs) and health facilities (Basic Health Units - BHUs, etc.) were not available. The recurrent costs of staff, free supervision and consultancy, utilities such as electricity, gas, water, medical equipment and service charges could not be precisely determined as the costs were extremely variable from district to district. The recurrent costs borne by the government are estimated to be around US$150-200 per facility/month including rent, utilities, etc. The overall government's contribution to the project is around US$ 1 million.

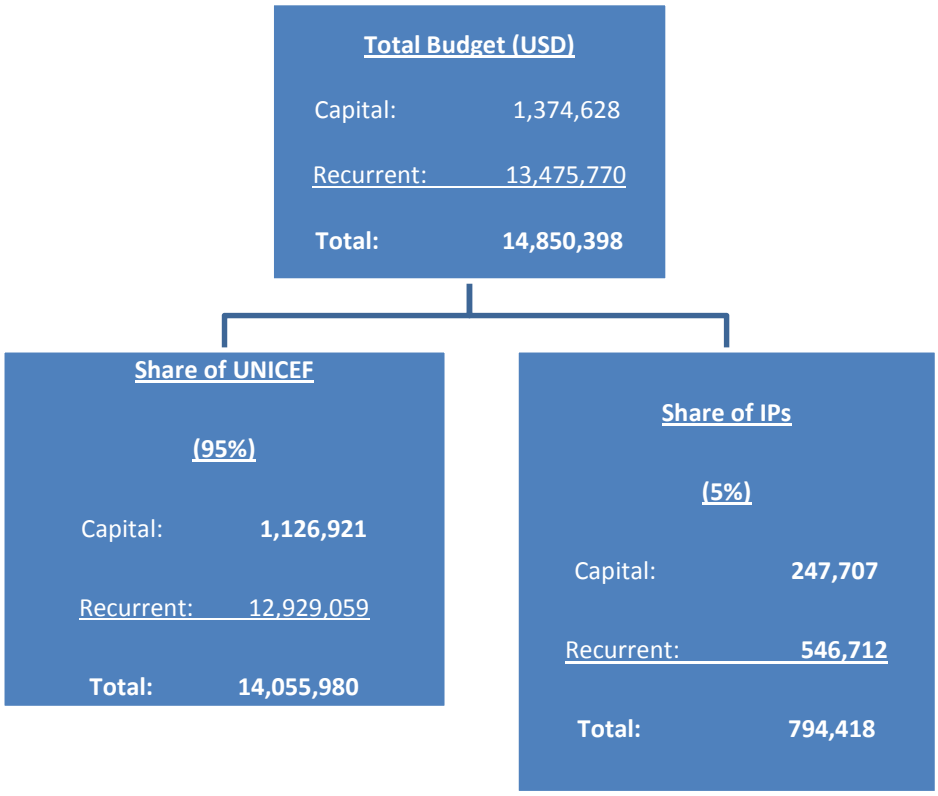

Figure 6.1 CMAM budget breakdown

As shown in the charts above, the total programme budget apart from the government's contribution is US$ 14, 850, 398. UNICEF has contributed 95% of the total budget whereas 5% has been contributed by the Implementing Partners (IPs). Of the total capital costs, 82% is paid by UNICEF and 18% by the

IPs. UNICEF pays 96% of recurrent costs while the IPs fund 4%. A substantial portion of the total budget, 91%, goes into recurrent costs while the rest goes to capital costs which are generally one time fixed costs or expenditures.[60] Besides UNICEF, WFP and WHO also share the financial burden the former providing RUSF and FBF, the estimated cost of which was US $ 2.8 million. The WHO is involved in upgrading the SCs in some selected districts of KP but the exact costs could not be ascertained due to non-availability of relevant financial information.

Capital Costs

Table 6.1 (Annex 3) shows the line items for all capital costs. The details of costs are mentioned share-wise between UNICEF and the IPs. Capital costs consist of 20 activities which were performed once in a project such as trainings, refresher courses, furniture, fixtures, tents for clinics, etc. The capital cost absorbs US $ 1,374,628 or 9% of the total programme's budget out of which 82% is contributed by UNICEF and 18% by the IPs.

There are nine line items (anthropometric equipment, tents for clinics, advocacy and surveys, etc.) amounting to US $651,811 (47% of the total capital budget and 58% of the total UNICEF's share in the capital budget) which was solely funded by UNICEF while the rest are shared by the IPs. The lowest cost capital item is tents for clinics at US $ 706 (0.05% of the total capital budget and 0.06% of the total UNICEF's share in the capital budget) while the salary top-offs for health staff is the highest, at $227,054 (16.5% of the total capital budget and 20% of the total UNICEF's share in the capital budget). A major contribution from the IPs is seen in office furniture and fixtures, US$ 67,454 $ (4.9% of the total capital budget and 27% of the total IP's share in the capital budget).

Recurrent Costs

Table 6.2 (see annexes) contains all recurrent costs of the CMAM programme. The details of cost are mentioned share-wise between the UNICEF and the IPS. Recurrent cost activities consist of those which were continued to the end of each project such as salaries of project staff, monitoring of project activities, warehouse rents and supply handling charges, operating costs of medical clinics and stabilization centres, fuel and maintenance charges, etc. There are 46 different recurrent cost line items.

The total of recurrent costs is US $13,446,593 i.e. 91% of the total budget out which 96% has been contributed by UNICEF and 4% by the IPs. There are 21 line items (medicines for SCs, therapeutic kits for SCs, multiple micronutrients, transportation cost, communication, etc.) amounting to US$ 9,050,251 (63% of the total recurrent budget and 70% of the total UNICEF's share in the recurrent budget), which was solely funded by UNICEF while the rest were shared by the IPs. The highest recurrent cost was of Fortified Blended Food (FBF) by WFP at US $2,783,819 (21% of the total recurrent budget). The largest proportion (33%) of the externally funding recurrent costs is devoted to the RUSF and RUTF.

While the greater portion of the vehicle cost (rental and operation) was borne by UNICEF, IPs also contributed toward the fuel costs. In fact, the major IP contribution was for fuel and maintenance (0.5% of the total recurrent budget and 13% of the total IP's share in the recurrent budget). The lowest recurrent cost was for travelling and monitoring (travel per diem) (0.003% of the total recurrent budget and 0.08% of the total IP's share in the recurrent budget).

[60] In the initial projects UNICEF was procuring supplies for SFP (UNIMIX), Later on WFP was mandated to provide FBF (Wawa Mum) and recently provided Supplementary Plumpy. WFP provides supplies to UNICEF IPs through FLAs [Field Level Agreements]. The cost share by WFP in the form of supplies is around US$ 2.8 million (19-20%) of the total cost for CMAM. The Cost Share by WHO in terms of monetary contribution is not known, but it may not be more than 1%.

6.1.2 Component Costs

The total budget of the CMAM programme is divided among four components. Table 6.3 reveals that a major portion of the budget is absorbed by the Supplementary Food Programme (SFP), which is 36% of the total budget allocation (around 20% is paid by WFP and 16% by UNICEF). At OTP level the share in budget is 32% while for Community Outreach and Stabilization centres, the share is 26% and 6% respectively. The reason behind the higher cost of the SFP component is that most of the target population is suffering from Moderate Acute Malnutrition (MAM). Another reason is that SFP is getting referral from both the community outreach and the OTP and the average stay of the beneficiary at SFP is longer. The reason for the lower cost of Stabilization Centres is the comparatively lower number of children who have severe acute malnutrition (SAM) with medical complications.

Table 6.3: Component Cost of CMAM across the program

	Community Outreach	SFP/MMS[61]	OTP	SC	Total
UNICEF	3,674,546	5,102,821	4,567,828	780,301	14,125,496
IPs	243,312	253,566	229,239	65,039	791,156
Total	**3,917,858**	**5,356,387**	**4,797,067**	**845,340**	**14,916,652**

6.1.3 Cost Summary of Selected Projects

In order to gauge the costs of projects, a sample of projects in 8 districts was analysed. The particulars of the projects launched by different IPs in the eight districts are summarized in Table 6.4. These projects cater to a target population of 2,413,317 spread over 124 union councils. The average project life is six months. The total funds allocated for the projects of the selected districts is US $7,753,737 which is 52 % of the cost of the entire programme. In these districts the highest number of beneficiaries hails from Swat which consists of 28 union councils and covers 34% of the total target population of the selected districts. The cost to implement CMAM per person in each district is also calculated which will also serve the purpose of cost comparison among the districts.

Table 6.4: Project Summary of the Selected Projects

	District	No of U/C	Population	Project Duration	Total Budget ($)	Cost Per Person
				Months	(Capital + Recurrent)	($)
1	Buner & Shangla	25	589,819	6	**1546537**	**3**
2	Dir Lower	22	463,744	6	**1174485**	**3**
3	D.I.Khan & Nowshera	20	257,381	6	**1268938**	**5**
4	Kohat	6	120,247	6	**625426**	**5**
5	Nowshera (IDP Camp)	1	97,000	6	**766891**	**8**

[61] Multi-micronutrient supplements

6	Swabi	22	75,000	7.5	**584545**	**8**
7	Swat	13	388,954	6	**713142**	**2**
8	Swat	15	421,172	6	**1073773**	**3**
	Total		**2413317**		**7753737**	

Out of the eight districts, Nowshera and Swabi bear the highest cost per person due to lower numbers in the target population. The major reasons for per person cost differentials which are reinforced in findings below and have a bearing on programme planning are the following.

1. The cost per beneficiary in camps is higher than in non-camps.
2. The cost per beneficiary in a project with lower population numbers is more than in projects targeting higher numbers of beneficiaries.
3. The most remote districts have higher costs as compared to centrally located districts.
4. Costs for international IPs are higher than for national IPs.

6.1.4 Cost Summary of Components in the Selected Districts

Table 6.5 (see annexes) presents a district-wise comparison of the component costs. The cost for two projects in Swat with the highest number of beneficiaries comprises 23% of the budget of the selected districts and 12% of the total budget of the CMAM programme. While in Swabi, the costs are comparably lower i.e. 7% of the budget of the selected districts and 4% of the total budget of the programme as it was a smaller project, executed for a target population of 75,000 (3.1% of the total targeted population of the selected districts).

Another reason for the lower cost in Swabi is that the project was executed by a local NGO. If extrapolations are made in comparing Swabi to Nowshera, where the project was executed by an international NGO, it is clear that for US$ 97,000 serving 4% of the targeted population of the selected districts, 10% of the budget is allocated which is 1% higher than the ratio of budget allocation for Swabi. Had the target population in Nowshera district been the same as Swabi, the requisite budget would have been 9% of the selected districts budget. Therefore, the sole reason for the cost differences seems to be the international NGO implementation where the recurrent costs are higher due to higher costs of staff. There are no accessibility or coverage factors which could affect the cost because both the districts are centrally located and enjoying uniform demographic factors.

6.2 Cost Efficiency

Table 6.6 shows the district-wise calculations of Cost per Beneficiary. The costs are also analysed with respect to components and by implementing partner. The overall review of the table shows that cost per beneficiary under each CMAM component is obtained by dividing the total budget of the respective project by the number of beneficiaries in each component.

6.2.1 Component-wise Project Cost Efficiency

The cost efficiency for the community outreach component analysis resulted in the following conclusions (Table 6.6):

- IPs with higher beneficiary numbers generally had lower costs per beneficiary for community outreach and Stabilisation Centres.
- IPs running the programme in IDP camps had higher costs due to infrastructure costs (e.g. clinics).
- National NGOs had lower costs than international NGOs due to the lower costs of human resources as charged in the PCAs.

Table 6.6. Component Project Cost Efficiency

S no.	District	I.P	Cost Per Beneficiary (US $)			
			Community Outreach	SFP/MMS	Therapeutic Feeding OTP	SC
1	Buner & Shangla	RAHBAR	5.56	17.12	200.68	234.47
2	Dir Lower	CERD	3.60	24.67	136.06	134.85
3	D.I.Khan & Nowshera	PEACE	7.37	49.34	274.19	380.11
4	Kohat	JI	2.24	27.41	142.46	333.02
5	Nowshera	Merlin	9.29	44.79	275.30	559.25
6	Swabi	CDO	3.69	30.38	173.19	457.81
7	Swat	AF	3.44	23.28	128.90	235.15
8	Swat	RP	3.30	22.66	123.65	245.50
Average of CPB of 8 Projects			**4.81**	**29.96**	**181.80**	**322.52**
Average of CPB of 45 Projects			**3.20**	**20.88**	**145.14**	**230.19**

In the early stages of the programme, due to lack of standardization for allocation of funds among components and line items, various approaches were adopted such as changes in staffing structure at community outreach level wherein the number of staff was increased for which the funds allocation was also increased. It proved a rational approach and yielded satisfactory and objective oriented results. It also minimized problems in the field.

Currently, a standard is being maintained for a systematic fund allocation to budgetary items. For example, human resources costs have been standardized and as a result the cost variation among various projects is reduced to minimum possible level. No major delays in funding allocation were reported except where due to crisis situations in the districts but these delays were not longer than a month or two. The project objectives were not affected by the delays.

6.2.2 Supply, Procurement and Acceptability of RUTF/RUSF

As demonstrated above, the costs associated with the supply of RUSF and RUTF form the largest percentage of the programme budget. This section looks at the efficiency issues related to the ready-to-use products. The RUTF used in Pakistan for therapeutic treatment of SAM is “Plumpy-Nut” procured by UNICEF from Nutriset in France and South Africa. The ready to use supplementary food (RUSF) and fortified blended foods (FBF) are supplied by UNICEF and WFP to the IPs for distribution for MAM management some of which are manufactured locally.

There is limited national production of RUSF and FBF (purchase of products from India is prohibited). To improve efficiency the Pakistan Integrated Nutrition Strategy (PINS) and stakeholders urge greater near-term support for sustainable local production. The efficient use of the ready to use products varies by site. Data collected from interviews, monitoring reports and visits to CMAM sites indicated the following issues in usage and supply of the RUTF/RUSF.

- The home use of RUSF and RUTF was not well monitored and there was evidence that efficient use was hampered by lack of compliance to the prescribed intake. The findings in Chapter 4 indicated that more monitoring effort is required to address the longer than recommended lengths of stay on the programme and failure to meet weight gain targets in some districts and to ensure that the RUSF and RUTF are appropriately administered.
- Interviewees said that the take home RUSF/RUTF intended for a malnourished child was also being used in some cases by the siblings and other members of the family and that the products were sold at times in the community markets, thus stronger community awareness may be needed to discourage these practices.
- The logistics/supply chain was not always reliable; interruptions in supply of supplementary and therapeutic foods affected the quality of programme implementation. There is a need to preposition supplies, and ensure stock availability by keeping contingency stock.
- Although IYCF counselling is provided to caretakers, there is a danger that the ready to use commercially prepared products will be perceived as better or healthier than locally prepared foods, therefore IYCF, use of local foods, and prevention needs to be continuously reinforced.
- "Made in Pakistan" (as is the case with Wawa Mum used by WFP for other programs) would be beneficial for community and health worker acceptance of the CMAM approach as they tend to have more difficulty from a cultural point of view in accepting foreign made products.

Interviewees largely agreed that local production of RUSF/RUTF is crucial for long term sustainability of the CMAM programme, contributing to the local economy by using locally produced foods and production facilities. However, it was unclear whether efforts by the MoH and its partners such as UNICEF and WFP were strong enough to support the work that needs to be done to make local production a reality. Such efforts would include supporting local researchers to formulate and develop the products. The development of a local recipe could be achieved through a public-private partnership, involving research and investment by the food industries, to pursue a cost effective option. Local industrialists and entrepreneurs would need to be provided with incentives to produce RUTF/RUSF locally. Any national production has to ensure product quality to meet stringent nutrient, hygiene and safety requirements for therapeutic food.

6.3 Sustainability Issues and Options for Expansion

From the preceding discussions, it is clear that the most sustainable option for scale up country-wide is transforming CMAM into a permanent and regular programme integrated with the national health system and with other relevant programmes as envisioned by the PINS. Through integration of CMAM the costs per beneficiary will be dramatically reduced by building upon systems and resources which are already functioning, e.g. the infrastructure, human resources, equipment and logistics systems. Nutritional supplies and capacity building will require funding sources, however, investment in local production of ready to use products will ultimately pay off in reduced costs. The lessons learned in KP can be applied to other provinces and this is already taking place in Sindh and Punjab.

The two major administrative challenges to integration and scaling up are discussed below: 1) structural integration of nutrition and CMAM into the health system in KP; and 2) funding.

Structural Issues

Devolution of decision making to the provinces, through the 18th Amendment promulgated in July 2011, has empowered KP to devise its own strategy to deal with health and nutrition issues and consequently, the health system is currently being restructured. The time is optimum for advocacy efforts to intensify and take root in convincing the KP Provincial Government to own CMAM as a permanent feature of its health service delivery.

Furthermore, the MoH suffers from weakened vision, policy, direction and coordination due to parallel efforts among its various sections. Thus, the most critical step is to establish a nutrition structure within the Department of Health at the District and Provincial levels to complement the efforts of MoH and development partners with the core responsibilities of delivering nutrition services to communities in their homes and keeping systematic records. (Please see the annexes for a possible structure for nutrition in KP.) At the community level, the Nutrition Support Committees (NSCs) should become a permanent feature of community management.

It has been estimated that only about half of the population in KP has access to national health facilities while the remaining population has no access to health facilities or opts to use private clinics or traditional homeopathic treatments. Partners in development, the government, UN, NGOs and others, must work together to complement, expand and scale-up CMAM activities in KP. Partners should utilize the experience and capacity, for example, of community outreach workers and social mobilizers, attained through CMAM to increase demand for national health services particularly where the population has no access or are not currently using national services.

Funding Issues

The current emergency CMAM programme does not have a strong foundation because implementing partners are not a strong technical force nor do they have the financial resources for carrying out CMAM activities on a long term basis. The short term stop-gap arrangement is not likely to yield substantial reduction in GAM unless a multi-sectoral long term strategy is developed and implemented. A more preventive approach is likely to save emergency funds, strengthen the national health system, and improve nutritional status in the country. Yet different and more stringent mechanisms exist for obtaining longer term funds. The irony of this arrangement has been discussed many times in international and national forums, yet funding sources continue to draw a line between emergency and development funding that is not conducive to bridging the gaps and ensuring sustainability although that is what most assistance organizations are mandated to promote.

Furthermore, the external funding for the programme coming mainly through UNICEF, WFP and WHO channels carries with it numerous bureaucratic burdens such as overhead costs and separate reporting, as well as uncertainty of funds, and need to piece together funding from different donor sources. Alternative models for funding and support, such as a pooled separately managed fund, might be developed to promote efficient use of external funds as the government assumes more of the financial responsibility, and enable the programme to serve more children.

Given the poor health and nutrition situation, limited resources and technical capacity, the KP government will have difficulty expanding CMAM in 24 districts at the union council level. However, discussions with development partners indicate their interest in supporting transformation of the emergency CMAM to a regular programme. UNICEF has selected four Northern districts (Lower Dir, Upper Dir, Buner and Swat) for regular CMAM. But this expansion appears to be questionable in terms of sustainability, as almost all the running costs of CMAM has been borne by UNICEF/WFP/WHO and as soon the funds are exhausted

the programme may come to an end. It is also crystal clear that the allocation of 0.7% of total GDP to health may not be sufficient to deal with the rising prevalence of chronic and infectious diseases and nutritional disorders. Long term public-private partnerships with generous support of development partners appear to be the only way of addressing nutritional problems with political will, commitment and supervision of the government.

It is also proposed that over the next five years, the GoP and development partners should enter into a bilateral cooperative agreement where GoP may take the burden of financing the operational costs of the nutrition set-up at provincial level, top off salaries to healthcare providers involved in implementation of CMAM, and appointing additional required staff. Financial support from the donors will be instrumental to encourage government to commit funds for CMAM and other nutrition interventions.

7. CONCLUSIONS AND RECOMMENDATIONS

This chapter draws conclusions, proposes recommendations and offers key good practices and lessons.

7.1 Conclusions

The following conclusions address the Pakistan evaluation TOR questions organized under OECD/DAC criteria (Annex 4). The main conclusions are in italics and the corresponding recommendation(s) mentioned in parentheses and described in the matrix below.

Relevance and Appropriateness

1. How well has the CMAM programme strategy evolved and to what extent were specific interventions designed according to the local context, needs and priorities?

The CMAM approach has effectively treated admitted SAM cases in Khyber Pakhtunkhwa (KP); evolution from an emergency intervention to an integrated longer term programme has begun but requires more strategic joint planning for prevention and to effectively address the widespread needs. CMAM began in KP as part of an emergency response to the 2010 floods which aimed to provide nutrition support, promote optimal IYCF, prevent micro-nutrient deficiency diseases, improve coordination, strengthen the monitoring system and local capacities, and integrate nutrition interventions into Primary Health Care. Nutrition support based on CMAM global objectives was largely effective. As yet CMAM has not evolved sufficiently to become a mainstreamed solution to acute malnutrition and requires greater integration with the national health system and more demand from communities. (Recommendation # 5)

The scale-up of CMAM was facilitated by pre-existing relationships among government, UNICEF, WHO, WFP and IPs, active case finding, formation of Nutrition Support Committees in communities, and established coordination mechanisms. (Recommendation #5)

The lack of initial rapid nutrition assessments limited agencies' abilities to develop targets and plan interventions and slowed response. Other challenges were security and access that limited the range of the programme, scarcity of nutrition infrastructure, and poor on-the-ground capacity among the government and NGO's. The community outreach strategy did not fully consider traditional gender roles as they affected access to women and children. (Recommendation #11)

The lack of a comprehensive national nutrition strategy and government commitment adversely affects the relevance and sustainability of CMAM. Nutrition is not a national priority evidenced by lack of a nutrition policy or strategy either at the federal or provincial level to deal with malnutrition in emergency and non-emergency situations and there is no high level nutrition authority. This has resulted in poor strategic coordination, weakens efforts to reach the most vulnerable and has created a donor dependent nutrition sector which is largely unsustainable. (Recommendation #1)

Progress has been made in developing the Pakistan Integrated Nutrition Strategy (PINS) in KP; however, the PINS is not supported by funding commitments or an implementation plan. The PINS effectively sets out a roadmap for vertical integration of all nutrition programs into the health care system but lacks concerted backing from stakeholders to push it forward to the implementation stage. (Recommendation #2)

2. How appropriate and adequate is the global guidance on CMAM for local or national needs including aspects related to needs assessment, programme planning/design, management /quality assurance, monitoring and evaluation?

Global guidance[62] promotes results based management of CMAM however RBM requires strengthening at the national level. Most global guidance does not effectively combine needs assessment and RBM with the technical protocols, or promote RBM as part of roles and responsibilities in national CMAM. Most global guidance for CMAM focuses on the four components and treatment protocols but is sparse in terms of guiding the RBM processes. However, substantial global guidance exists for general programme planning. The results based framework (Log Frame Analysis) for the overall programme was not updated throughout the programme; some outcome indicators such as for screening were not realistic. (Recommendations #3 and 11)

Regular evaluations and reviews of CMAM are lacking and need to be planned with allocated funding at the onset of the programme. A multi-sector emergency 2010 flood response evaluation covered nutrition and the nutrition cluster was evaluated, however, no CMAM-specific reviews or evaluations were conducted since the programme's start up in KP in 2008. (Recommendation #14)

Global guidance is sparse or lacking for integration of CMAM into the national health system, equity and gender, community outreach and MAM management. There is currently no effective global or national framework to guide integration of CMAM with the national health system and planning among government and implementing partners. IYCF is being merged with CMAM but needs tighter integration. (Recommendation #3)

Sphere minimum standards are useful to measure programme performance for treatment of admitted SAM cases; standards are needed for screening, relapse, re-admissions, referrals and home visits. Screening coverage as indication of the success in case finding is not accurately tracked by individual child and repeat screenings are not tracked. Follow-up on referrals is not always tracked. There is no standard for relapse, and relapsed and defaulted cases rejoining the programme are considered new admissions, thus double counting children. Reasons for relapse and default are not collected or analysed. (Recommendation #3)

The Pakistan Guidelines for CMAM (2010) offers detailed protocols but requires stronger guidelines for monitoring and cultural adaptation of the program. The national CMAM guidelines require updating to include information on cultural adaptation, gender and equity, IYCF, and monitoring programme performance and clarity on admissions and referral procedures***.*** (See also number 24.) (Recommendation #3)

3. How adequate is UNICEF's technical and organisational support to the planning and implementation of CMAM?

UNICEF effectively provided surge capacity and technical support, for example, to start the Nutrition Information System (NIS) and support the nutrition cluster nationally and provincially. As the Cluster Lead Agency, UNICEF acted as a provider of last resort including coordination of the FANS, provision of necessary RUF products when WFP was unable to, as well as availability of human resources. UNICEF supported the development of the PINS. For scaling up, UNICEF needs greater headquarters and regional support and more staff members with nutrition expertise to promote nutrition policy and provide consistent guidance to the GoP and IPs. (Recommendation #4)

Effectiveness and coverage

4. To what extent have the expected outputs and outcomes been realised through the CMAM programme? If there are shortfalls, what are the contributing factors?

[62] e.g. FANTA Training Guide for CMAM, 2008

Most Sphere standards for admitted SAM cases and facility quality standards were met and these achievements were facilitated by national CMAM guidelines, training, effective IP support, use of the government facilities for the SFP/OTP centres, and involvement of some of the government health care providers who received salary top offs. OTPs achieved a 91.5% cure rate for SAM cases and 7.5% default rate. The death rate was 0.2%. The partnerships among communities, the DoH, UNICEF, WFP, WHO and IPs effectively supported CMAM services for 70,000 children with acute malnutrition and 14,000 children with severe acute malnutrition in select areas of KP. (Recommendation #1)

For SAM cases, not all districts achieved the Sphere standard for average weight gain and children in some districts spent too long on the program. ***The average length of stay was 70 days (against the standard of < or = 60 days) and average weight gain of 2g/kg/day (against the standard of 5g/kg/day).*** In particular, children spent more time on the programme than recommended in the districts of D.I. Khan and Swat. The reasons are not precisely identified but are thought to include interferences of conflict and migration, weaknesses in programme planning, inadequate monitoring of compliance with RUTF administration requirements, inconsistencies in taking anthropometric measurements, and weak follow-up, e.g. in Swat, due to remoteness of some areas and challenging topography. (Recommendation #13)

For MAM management, a 95% cure rate was achieved among registered children but none of the districts achieved the average weight gain recommendation. The default rate was 4.2% and there were no deaths. The average weight gain was 1.75g/kg/day (against the standard of 3g/kg/day). For the length of stay, Swat was the only district that did not perform well, and the average among districts was well above the minimum standard. (Recommendation #13)

Programme performance data is not consistently collected across sites making assessment and comparison of outcomes and progress difficult. Nutrition cluster support, coaching and dedicated information managers in IPs facilitate NIS effectiveness and on-site monitoring has improved. The SCs require immediate support to structure programme data recording which is currently insufficient for analysis. Relapse data needs to be collected as it is in other countries. (Recommendation #12)

5. What is the estimated coverage of CMAM services against the national level need?

To assess treatment coverage in targeted districts, a coverage survey is needed. Treatment coverage in KP cannot be assessed with available data and a coverage survey is necessary but was not planned as part of the programme strategy. In KP, CMAM covered only part of the need before the programme downsized. (Recommendations #9)

6. How developed and successful are the specific CMAM strategies (community outreach and mobilisation, screening/enrolment, feeding, treatment, information management, follow up) and the interventions (as per the programme logic model) in realising overall programme objectives?

Misperceptions by the community may pose sizeable constraints to the effectiveness of the program such as through reticence of community members to use CMAM services, therefore community assessments and sensitisation prior to programme implementation are critical. Community assessments might have helped to plan effective means to counter male resistance and difficulties accessing women and children, prior to the initiation of the programme. IPs ultimately succeeded in sensitizing men, leaders and decision makers on community objectives and mobilizing communities to use CMAM services. (Recommendations #17, 18)

Practical means of monitoring home visits are necessary to gauge the outcomes of the home visits, contribute to knowledge about issues in compliance, and identify obstacles faced by community workers and health staff. Household visits may have significant positive outcomes for

supporting potential defaulters and problem cases and increasing efficiency of RUTF usage. However, home visits are generally not documented by community workers or closely monitored by supervising staff. (Recommendations #13, 17)

Data on criteria (by child, gender, group and area, relative to the population) are not consistently collected and analysed as stipulated in national guidelines for screening. More effort is needed to collect data by well defined criteria to help determine screening targets for each district, ensure that screening data are provided to information centres, revise targets based on significant population changes, and analyse screening data to identify groups or areas that require more attention. (Recommendation #11)

Stabilization Centres (SCs) were well managed but coordination was poor between OTP and SC both for referral to the SCs and discharge back to OTPs. Children with complications may be missed for treatment in the SC and children discharged from the SC may not return to the OTP for SAM treatment. (Recommendation #20)

Collection and use of anthropometric data needs to be synchronized across the components of CMAM; SCs are using WFH data while OTPs and SFPs are using MUAC data. (Recommendation #5)

7. What is the contribution of the programme to national capacity-building among nutrition and health professionals and community workers, to policy and system/institutional development and to the engagement of the private sector and other key stakeholders? What conclusions can be drawn regarding the effectiveness of capacity building efforts?

Overall knowledge of nutrition and CMAM was promoted in 2010 but greater capacity development was needed for protocols and IYCF, and more in-depth training for inexperienced staff. The Nutrition Cluster effectively planned for intensive capacity development of 800 health care providers and IP staff with follow-up refresher training in 2011. Harmonization activities are necessary, among the MoH, UNICEF, WHO and WFP such as workshops that promote a stronger joint capacity to achieve the goals of CMAM. (Recommendations #16 and 17)

Capacity needs assessments should be routinely undertaken to promote efficient use of resources and well-targeted training; capacity development activities should be followed up with evaluation of effectiveness. The CMAM programme built up a large cadre of trained staff who should continue to play a vital role in creating mass awareness. However, due to diverse qualifications, knowledge and experience of CMAM staff, different levels of training and curriculums were needed to promote a consistently high standard of programme services. (Recommendation #16)

Further efforts are needed include and capacitate private health care providers in CMAM particularly in their roles in community outreach. Due to their significant levels of health care coverage, private sector general practitioners and their supporting staff need to be brought into mainstream IYCF and CMAM activities. (Recommendation #15)

8. What are the key successes in generating new knowledge by the programme? Are these well documented and disseminated within the country and outside? What are the knowledge gaps which still prevent expansion of services through larger investments in CMAM?

The nutrition cluster is effectively using knowledge from previous responses in the 2011-12 emergency response in Sindh and other provinces including scale up of CMAM. More knowledge regarding Pakistan's nutrition/health system and knowledge applied from other countries and regions could be helpful in promoting dissemination of nutrition knowledge among stakeholders and raising nutrition to a national priority. (Recommendation #5)

9. Are there any noteworthy good practices and lessons regarding overall programme effectiveness or the effectiveness of specific strategies, management modalities used?

Key lessons and good practices are mentioned below following the recommendations.

Efficiency and quality of services

10. How has the management aspect of CMAM evolved over time? How well understood and implemented are the current management mechanism including the roles and responsibilities of various staff and stakeholders? (See also integration below.)

Joint planning for strengthening the national nutrition programme and CMAM is not strong enough between the DoH, WFP, WHO, IPs and UNICEF. The coordination between UNICEF and WFP (for MAM management) is stronger than between UNICEF and WHO (for SC development). However, the organisations are seen by stakeholders to take different and sometimes isolated approaches to addressing acute malnutrition and many think the agencies need to be more tightly coordinated through stronger joint planning to promote national capacity. The tendency to be organization-centric is also evident among IPs in their nutrition cluster behaviour. The DoH, WHO, UNICEF, IPs and WFP should build on the foundation of their joint programme relationship for an even greater understanding, collaboration and synergy to promote the goals of CMAM, share resources, and boost nutrition priorities. (Recommendations #5 and 11)

Management of CMAM in KP has not significantly evolved to be integrated into primary health care, partly due to weak commitment from government to nutrition support and to managing CMAM through NGOs as emergency programmes. IPs staff use the government health system infrastructure for SFPs, OTPs and SCs and government health staff participate to various degrees, generally motivated by salary top-offs. Government staff play marginal roles in decision making; health system staff require more clarification of their roles in relation to the roles of the IPs. (Recommendations #5 and 16)

11. How systematically have the funds been allocated/utilised across programme strategies/activities to realise programme objectives? If there are delays/deviations in fund utilisation, how were these justified and what are the implications for attaining programme objectives? What lessons and recommendations can be drawn for the future?

Investments in capacity development and equipment have resulted in good to very good quality of CMAM services in health facilities. More investment should be devoted to strengthening community outreach, and studies and assessments that will help to track programme coverage, outcomes and impacts. (Recommendations #9, #11 and #18)

It may be cost effective to increase the number of Lady Health Workers who are well trained in nutritional assessment and counselling to promote IYCF. The greater use of government supported LHWs may be more cost effective and sustainable than hiring and training IP staff and will increase government support as LHWs now receive incentives for their work. However, they may be overburdened and thus their numbers should increase, and/or they focus on the most vulnerable children. (Recommendations #5 and #17)

Short term agreements of three to six months between UNICEF and IPs and delay in provision of equipment and RUSF/RUTF to IPs made their services less efficient. Contracting IPs took too long and the short-term project approach with limited contracts for IPs (3- 6 months) was not advantageous to promote monitoring. The limited PCAs were thought to be reflective of lack of commitment to long term funding and planning and thus could adversely affect the performance of staff and have a negative impact on efficiency as they are always in search of better jobs. (Recommendations #10 and #22)

12. What are per unit costs of CMAM in various contexts? Can any conclusions be drawn regarding cost-effectiveness / efficiency for treatment according to the CMAM programme in particular country contexts?

The largest proportion (33%) of the externally funded recurrent costs is devoted to RUSF and RUTF; costs become significantly higher per beneficiary with severe and complicated malnutrition, attesting to cost effectiveness of prevention. The DoH makes a significant contribution to CMAM's capital costs through provision of health facilities. Support for heath staff and utilities comprises an estimated 7% of recurrent costs. The costs per beneficiary differed by district and IP; the average costs were SFP ($21); OTP ($145); and SC ($230). (Recommendation #8)

Lower overall programme costs were associated with local NGO implementation due to lower cost of human resources. Other factors in lower costs were population densities (higher is less costly), camps versus non-camps (camps are more expensive) and the remoteness of districts (central services are less expensive). (Recommendation #10)

More studies (e.g. evaluations, reviews, surveys, cost analyses) are required on cost efficiency for managing MAM and supporting sustainable and preventive behaviour changes through IYCF and outreach efforts. MAM management through SFP is much cheaper per beneficiary than SAM treatment and combined with greater attention to counselling of MAM caretakers if foods for children are available in the market – may constitute the most sustainable and preventive approach for addressing MAM and preventing advancement of SAM at a community level. (Recommendations #14 and #21)

13. How operational and effective are the coordination mechanisms at the country level (i.e. coordination by the Government, including different ministries and other implementing partners, stakeholders (other UN agencies, NGOs, donors, etc.)? If noticeable gaps are evident, how can they be addressed?

Government coordination of stakeholders for nutrition is limited and the sector functions through an uncoordinated planning and funding approach. Government coordination mechanisms (e.g. DoH Nutrition Section at Federal level) are not well coordinated among themselves and government representatives do not always show strong decision making in the nutrition cluster. Stronger advocacy efforts from donors and other stakeholders should encourage greater leadership and a more coordinated approach among government, funding and assistance agencies. (Recommendation #5)

The regularly functioning nutrition clusters in Islamabad and KP offer opportunities to support government coordination and widen nutrition communications among assistance organizations and communities. The evaluation of the nutrition cluster pointed out the major gaps: lack of an overarching nutrition policy and strategy; need for more expertise among government and NGOs for nutrition assessment and programming, and better understanding of roles and responsibilities within the cluster system. Recommendations included development of a national nutrition and preparedness strategy, and sensitisation of cluster members as to their roles. (Recommendations #1, #4, and #5)

14. How timely and effective was UNCEF RO's and HQ's guidance and support in achieving overall goals and objectives of the programme? How successful was the coordination between NYHQ, RO and COs within UNICEF?

UNICEF's HQ and RO support to the CO after the flood disaster was effective to expand nutrition response capacity; further technical support is needed for scaling up CMAM. UNICEF HQ and the ROSA (Regional Office in South Asia) sent high profile management in a timely manner to raise attention to flood response needs and then substantially expanded the staff in the CO. For scale-up to cover emergency and on-going needs for CMAM, securing funding will be a major challenge due to the

immense national needs and the variation in sources of and conditions governing emergency and development funding. (Recommendation #4)

15. To what extent does the service delivery meet expected quality standards? What factors have contributed to meeting quality standards? Where quality standards are not met, what are the key bottlenecks/constraints that need to be addressed in order to meet quality standards?

    (See also question 6 above.)

Quality of services at SFP/OTP health facilities evaluated (including availability of equipment and supplies, trained staff and adherence to standards and guidelines) was generally good but challenged by needs for further skill development and referral management. Stronger qualifications, knowledge and skills of the staff are needed to improve anthropometric measurements, medical examination and referrals to SCs. **(**Recommendations #5, #13)

A number of health facilities with SFP/OTPs fall short in some aspects of site management for CMAM services including inadequate and poorly ventilated waiting rooms, lack of play areas, and not displaying guidelines or IEC materials. (Recommendation #19)

Quality of services in SCs evaluated was very good but still under development in some districts. Fully established SCs scored high in having well trained staff and adequate supplies of therapeutic milks and medicines. Some offered many examples of good practice, while others were under development and required more time to establish procedures and coordination. (Recommendation #20)

The SMs, COWs and Health and Nutrition Educators (H&NEs) hired by IPs played an important role in counselling households, providing counselling sessions on CMAM, hygiene, breast feeding and IYCF. There was evidence of behaviour changes and reducing inappropriate feeding and poor health and hygiene practices. The districts of Swat and Charsadda surpassed the others in conducting the greatest number of sessions attributed to an integrated approach of merging CMAM with other programs, more highly skilled staff, and greater availability of IP resources. (Recommendation #18)

Programme sustainability and scaling up (country level)

16. What level of progress has been achieved to build CMAM programme's ownership by the Government and its integration in the national service health delivery system? What is the evidence regarding national and sub-national engagement and ownership of the CMAM? To what extent has national ownership of CMAM programme increased? What are the success factors and lessons learned? Where this has not occurred fully, what are the constraints and consequent lessons for the future? Is there any evidence of increased budgetary allocations at the national level?

There has been progress towards national ownership and integration but most aspects of integration are minimal to partial. Ownership has improved through training, performance incentives, and coordination mechanisms. As per the nutrition cluster, 90% of CMAM sites were established in government run facilities, which was believed to ensure sustainability of CMAM after the emergency phase was over, as the government staff can still continue providing these services. In reality, CMAM has been implemented largely as a parallel system in KP with IPs being responsible for staffing, monitoring and capacity development. The time for integration is optimal given the strengthening of provincial authority; the integrated CMAM programs in Mardan in KP and Punjab will promote good practices. Joint planning should define standards and indicators for integration and structure nutrition authority within the system. (Recommendation #5)

Further work needs to done to encourage the involvement of local agencies/structures such as local NGO's, CBOs, and civil society.[63] (Recommendation #10)

The Government's commitment to improving nutrition is growing; KP/FATA PINS includes CMAM integration with IYCF and supplementation. The PINS requires detailed assessments of staff and logistical needs and a joint implementation plan with indicators. In KP, a higher level of advocacy and joint planning is needed to promote integration of nutrition programmes into the health delivery system and concomitant allocation of funds for nutrition activities. *Progress has been made in establishing MOUs and partnerships among DoH and other relevant ministries, UN and IPs, and development of a nutrition response plan. (Recommendation #2)*

17. How feasible are the current interventions in terms of the ability to be sustained without direct technical/financial support by UNICEF and other agencies? What factors have supported or inhibited expansion and scale up of CMAM interventions?

CMAM is currently not sustainable; as demonstrated in KP, as emergency funds dwindle, CMAM managed by IPs is phased out; capacity and funding are not adequate from government sources to maintain the programme. Presently, CMAM cannot be sustained without external support, although the support from IPs could be phased out as technical capacity is built in national health services. The main factor both supporting and inhibiting scale up is the availability of resources from UNICEF, donors, IPs and other organizations. (Recommendation #7)

18. What are the issues and options related to the feasibility (administrative, institutional, technical, and financial) for replication and expansion? What are the risks related to sustainability that are related to discontinuation of external support? What plans/strategies/mechanism exist for programme phase out/closure?

For scale-up, joint feasibility studies and nutrition surveys are required across districts following global guidelines in order to map and prioritize districts for scale-up. (Recommendation #10)

The most costly programme inputs are the supplementary and therapeutic foods; these costs might be reduced through local production, which will require investment and strategies to deal with constraints to local production. Means to reduce the costs of RUTF, such as providing initial support to industrialists and entrepreneurs to expand/initiate production of the RUTF locally, need to be invested in as soon as possible. It is important to include the private sector in the provision of local supplementary foods and their distribution through vouchers or cash distributions/coupons to caretakers. (Recommendation #8)

Nutrition science needs to be elevated in importance country-wide in academic institutions that train health and nutrition professionals. (Recommendation #5)

Programme impact (outcomes / potential impact)

19. Based on longitudinal data and other type of information, what conclusions can be drawn regarding the extent to which the programme contributes to a long-term improvement in the quality of life of the children treated through CMAM?

Data on impact is inconclusive. According to the FANS, the existence of CMAM in KP since 2009 may have contributed to a lower post-emergency GAM rate in KP compared to Sindh and Punjab, during the 2010 flood emergency. There is not enough data to verify whether CMAM was a major contributing factor to less than serious levels of GAM post flood disaster, as disaster preparedness in

[63] Also a conclusion of the Nutrition Cluster Evaluation of the Pakistan Flood Response, 2011, page 22.

general was higher in KP than in other provinces and relief assistance had been provided for four months before the FANS took place. (Recommendation #11, #12)

20. How significantly has the programme contributed to either revitalize or place nutrition high on the national policy and developmental agenda?

The development of the PINS indicates that provincial priority has been enhanced but government funding for PINS would be the key indicator of political commitment for nutrition positioning on the provincial development agenda. (Recommendations #1 and 2)

Cross-cutting issues

21. How effective is the vertical and horizontal coordination (involvement of various sectors) in planning and implementing CMAM? How strong is the national /sub-national engagement and ownership of CMAM programme (including national budget allocations)?

Integrated approaches that have been planned have not been fully effective due to weak understanding in the provinces of need for intersectoral coordination and plans made in the central cluster. Four clusters developed the cross cluster "survival" strategy in the flood relief and early recovery planning (WASH, food security, health and nutrition including CMAM to be delivered through existing facilities and services), however, it was not fully demonstrated in the coordination hubs. (Recommendation #3)

22. How adequate is the progress achieved in implementing a national policy on CMAM or in integrating CMAM components into existing policies? What more needs to be done? What lessons can be drawn?

(See also question 1.)

The lack of a comprehensive provincial nutrition policy and strategy and government commitment has resulted in donor dependent nutrition sector and poor strategic coordination. The PINS needs to be backed by stakeholders to push it forward to the implementation stage. The Government's commitment to improving nutrition is growing; KP/FATA PINS includes CMAM integration with IYCF and supplementation. The PINS requires detailed assessments of staff and logistical needs and a joint implementation plan with indicators. In KP, a higher level of advocacy and joint planning is needed to promote integration of nutrition programmes into the health delivery system and concomitant allocation of funds for nutrition activities. Progress has been made in establishing MOUs and partnerships among MoH and other relevant ministries, UN and IPs, and development of a nutrition response plan. (Recommendations #1 and 2)

23. How systematically has institutional capacity development been pursued at all levels for long term sustainability of the programme? What more needs to be done?

A systematic approach which first builds a strong provincial nutrition sector and foundation in government policy has not been successfully pursued; institutional development has been rooted in the programmatic needs largely supported externally, thus is not likely to be sustainable for the long term. As discussed in other sections, a provincial nutrition authority has to be established and a provincial nutrition strategy which brings nutrition to a priority development objective and coordinates stakeholders around its objectives. (Recommendations #1, #2, #5)

24. How adequate are the guidelines on various aspects of CMAM programming?

The Pakistan Guidelines for CMAM (2010) offers detailed protocols but requires stronger guidelines for monitoring and cultural adaptation of the program at province specific. The CMAM

guidelines require updating to include information on cultural adaptation, gender and equity, IYCF, and monitoring programme performance and clarity on admissions and referral procedures. (Recommendation #3)

25. To what extent the technical support provided by various agencies is well-coordinated and responds adequately/coherently to various programmatic needs?

(See also question 3 above.)

The technical support for CMAM from DoH, WFP, WHO, UNICEF and IPs was adequate but needed fine tuning for coordination between SCs and OTPs, data collection and analysis, and support for monitoring in households, among others. The integration of CMAM into the provincial health system is a primary objective and more effort is required to do this in a structured manner. (Recommendations #5, #11, #12, #13)

Joint planning for strengthening the national nutrition programme and CMAM is not strong enough between the MoH, WFP, WHO and UNICEF. The coordination between UNICEF and WFP (for MAM management) is stronger than between UNICEF and WHO (for SC development). However, the organisations are seen by stakeholders to take different and sometimes isolated approaches to addressing acute malnutrition and many think the agencies need to be more tightly coordinated through stronger joint planning to promote national capacity. The tendency to be organization-centric is also evident among IPs in their nutrition cluster behaviour. The DoH, WHO, UNICEF and WFP can build on the foundation of their joint programme relationship for an even greater understanding, collaboration and synergy to promote the goals of CMAM, share resources, and boost nutrition priorities. (Recommendations # 5, #11)

26. To what extent did gender equality exist in CMAM programmes in participation, decision making and access to CMAM services? Are there any issues related to gender, geographic or other form of equity in CMAM service delivery and access that are evident? What measures could be proposed to improve programme targeting?

The need to achieve greater coverage of SAM cases and prevention in infancy, through reaching remote and conflict affected areas has to be addressed broadly through integration in the provincial health system, community assessments, regular nutrition and coverage surveys, use of private health providers, sensitization of community leaders and more efforts toward IYCF counselling and pre and postnatal support. Multi-agency emergency response strategies effectively identified potential gender assistance issues such as the seclusion of women. The traditional gender roles in KP are male dominated so this needs to be considered in programme planning and in guidance. The initial resistance to CMAM in some communities was countered successfully through sensitisation and home-based screening. (Recommendations #3, #5,#9, #11, #12,#15, #17)

The national guidelines and assessments, such as the FANS, should more effectively guide staff to ensure coverage of groups with higher prevalence, such as girls and children aged 6-11 months and children living in acute and chronic food insecurity, and strive for prevention for the first six months of life. Efforts by partners are increasing to reach HIV/AIDS positive people and strengthen capacity development of women community workers and staff. CMAM integration into the health delivery system is important for coverage of malnourished children living in remote and food insecure areas and to serve the poorest of the poor in KP. (Recommendations #3, #5, #11)

7.2 Recommendations

The evaluation has determined that CMAM is a relevant and effective approach in KP for addressing SAM and that effectiveness, efficiency and sustainability of the programme can be improved through the recommendations below. The evaluation has clarified that integration into the health delivery services is central to scaling-up for a sustainable CMAM. The Pakistan Integrated Nutrition Strategy (PINS) has effectively set the stage for integrating CMAM and other nutrition and health interventions. With the objective of integration in the forefront, stronger partnerships between the supporting agencies, WFP, WHO, UNICEF and IPs, with the government are critical for ensuring that CMAM reaches the most vulnerable children and that the programme will have adequate financial support in the future.

The evaluation has identified the following priority recommendations to be addressed by the Government of Pakistan, MoH, DoH, UNICEF, and other partners and stakeholders in order to better serve acutely malnourished children in Pakistan.

DETAILED RECOMMENDATIONS	***Management responsibility***
Policy, Strategy, Guidelines	
1. Develop a provincial **nutrition strategy** that outlines strategic priorities, confirms roles for nutrition authority and coordination mechanisms, sets out capacity needs, and makes budget commitments for nutrition interventions.[64] Plan and implement exercises which strengthen **a joint preventive approach** among the DoH, UN agencies and other stakeholders such as workshops and developing joint provincial statements on addressing acute malnutrition.	***The Planning and Development (P&D)Department, Govt. of Khyber Pakhtunkhwa, should take the lead in coordination with the DoH and other sectors with technical support from UNICEF, WFP, WHO, and Donors***
2. Support implementation of the **PINS** acute malnutrition components through advocacy for leadership and commitment, providing technical assistance to update/finalise nutrition PC-1s, and providing budget allocations and funding.[65]	***The DoH should take the lead in with technical support from UNICEF, WFP, WHO, and Donors***
3. Strengthen global guidance for integration of CMAM into the provincial health system, and equity and gender, community outreach and MAM management. ***Develop a provincial* CMAM guidelines**, to include: • detailed protocols for referrals and admissions to SCs • stronger IYCF integration • integration with WASH, food security and health sectors • Management of Acute Malnutrition in Infants less than 6 months of age (MAMI) • guidance on addressing cultural, gender and equity issues • information on performance management data and guidance for	***The P&D should lead in coordination with the DoH with technical support from UNICEF, WFP, and WHO and others*** ***UNICEF and WHO should take the lead in strengthening global***

[64] Also a recommendation from Nutrition Cluster Evaluation, Pakistan Flood Response, September 2011 and the PINS.
[65] Also a PINS recommendation

monitoring programme performance • capacity standards to promote knowledge and practice for staff in training and in health facilities.	***guidance with WFP, donors, and NGOs implementing CMAM***
4. Provide UNICEF HQ and RO technical support to the MoH, DoH and CO to design CMAM expansion. Strengthen **monitoring and advocacy** at the national and provincial levels by ensuring dedicated staff with nutrition expertise for managing CMAM using a strategic approach.[66]	***UNICEF should take the lead in coordination with MoH/DoH, IPs and UN partners***
Sustainability and Scale-Up	
5. Conduct joint planning among IPs and other agencies to contribute tangibly to capacity development for the DoH; establish **indicators for progressive integration** of CMAM into the provincial health system with the government taking an increasing role in accountability, coordination, financing, and implementation and monitoring. Adapt existing short courses in **public nutrition**, including nutrition concepts and approaches, cost effective and high impact interventions, among them IYCF and healthy family diets.	***P& D and DoH should coordinate with support from UNICEF, WFP, WHO, and IPs***
6. Develop consensus on whether MUAC or WFH should be used in nutritional assessment in SFP/OTP centres and in SCs in order to **promote consistency in standards for admissions and services**.	***DoH should take the lead in consultation with technical support from UNICEF, WFP, WHO and Academia***
7. Advocate at high levels to **secure funding commitments** for scaling up with a view to supporting permanent integration of CMAM and a national nutrition strategy with coordinated projects and programmes. Seek alternatives for fund management that reduces overhead costs such as a pooled fund.	***The P&D, Govt. of Khyber Pakhtunkhwa should take the lead in consultation with donors and UNICEF, WFP, WHO (nationally, regionally and at HQ levels)***
8. Assess the options and potentials to support the **development of in provincial production of RUTF.** Build national capacity to produce medically certified RUTF (and step up production of RUSF & FBF) by developing an appropriate RUTF and by providing technical assistance to one or two food processing companies to produce the products in quantities required (also a PINS recommendation)	***The P&D, Govt. of Khyber Pakhtunkhwa should take the lead in consultation with industry and academia***
9. Conduct **coverage surveys** in districts where CMAM is being implemented using S3M[67], CSAS[68] or SQUEAC[69] methods to measure	***The P&D, Govt. of Khyber Pakhtunkhwa should***

[66] Also a recommendation from Nutrition Cluster Evaluation, Pakistan Flood Response, September 2011.

[67] Coverage surveys following CSAS, SLEAC, SQUEAC, or S3M (Simple Spatial Survey) methods adhere to the "no service - no survey" principle. S3M (2010) is a wide-area version of CSAS using improved spatial sampling and more efficient use of data.

[68] Centric Systematic Area Sampling (CSAS) was developed in 2002 to estimate coverage of selective feeding programmes. It provides an overall estimate and a spatial distribution map of programme coverage, and a ranked list of programme-specific barriers to service access and uptake. As CSAS is resource intensive, it tends to be used in programme evaluation rather than in planning.

[69] SLEAC (2008, Simplified LQAS Evaluation of Access and Coverage) is a rapid method and can map coverage over wide areas (e.g. national coverage surveys); designed for low cost M&E at clinic level. SQUEAC (2008 Semi- Quantitative Evaluation of Access and Coverage) and uses a two-stage screening test model: **STAGE 1:** Identify areas of probable low and high coverage, and reasons for coverage failure using routine programme data, already available data, quantitative data that may be collected with little

the impact of the programme in terms of coverage against the Sphere standards. Build coverage indicators into the CMAM programme design and ensure funding for the surveys. Map and prioritize districts for scaling up CMAM.	***take the lead with technical support from UNICEF, WFP, WHO, and donors***
10. Promote **efficient administration of IP agreements** with the objective of timely contracting and using a long term project approach to promote IP transfer of skills to the government system and a long term vision of programme monitoring. Increase involvement and capacity of national NGOs as IPs and increase participation of civil society organizations.	***UNICEF, P&D, donors and IPs***
Planning and Monitoring	
11. Conduct **joint assessments/surveys** regularly and in the immediate aftermath of a disaster/emergency to provide baselines, and monitor nutritional status over time and the results of on-going CMAM and related programs; Use assessment and periodic surveys to identify the most vulnerable groups and challenges to implementation of the four components and fine tune the CMAM approach and results based tools accordingly. Identify well defined criteria (by gender, group and area, relative to the population) for determining the **screening and admissions targets** for each district and update the results based tools as situations change.	***The P&D, Govt. of Khyber Pakhtunkhwa in collaboration and support from UNICEF, WFP,WHO, development partners and academia***
12. **Strengthen the NIS** to make sure that data are consistently collected on relapses, defaults and deaths, etc. Ensure gender disaggregation of programme data for each category collected and training of staff who are responsible for data recording	***The UNICEF and DoH should coordinate and take necessary steps***
13. Elaborate a well-defined mechanism for monitoring the **household follow-up activities.** Initiate regular supervision of the sites, focusing particularly on anthropometric measurements, clinical examination, counselling and follow up for use of the RUSF and RUTF	***The DoH should take the lead with technical support from UNICEF, WFP, WHO and donors***
14. Maintain a schedule of **regular reviews and joint evaluations**, such as mid-term and end of programme which are planned in early stages.	***The DoH should take the lead with technical support from UNICEF, WFP, WHO, and donors***
15. Discuss the role of a reported 50% of health care provided by **private clinics** in assessments, and cover means in planning to include private health care providers in CMAM particularly in community outreach in order to increase the demand for CMAM services	**The DoH should take the lead with technical support from UNICEF, WFP, WHO, and support of donors**

additional work, and anecdotal data. **STAGE 2:** Confirm the location of areas of high and low coverage and the reasons for coverage failure identified in Stage 1 using small-area surveys.

Capacity Development and Training	
16. Conduct capacity and training needs assessment for each CMAM site and provide appropriate levels of training according to staff experience and knowledge, including specialized training, pre-service training, and refresher courses. Evaluate training periodically through, for example, before and after tests, staff feedback, and on-the-job performance assessments.	***The DoH should take the lead with technical support from UNICEF, WFP, WHO, and donors***
17. Provide **strong training and on the job support** for women community health workers to strengthen their capacity to identify malnourished children. **Promote IYCF through Lady Health Workers** who are well trained in nutritional assessment and counselling.	***The DoH should take the lead with technical support from UNICEF, WFP, WHO, and donors***
Programme Implementation and Quality of Services	
18. **Community outreach:** Ensure adequate human and financial resources to conduct community sensitization prior to initiation of screening and other activities to obtain community feedback and adapt to challenges	***DoH with technical support from UNICEF, WFP, WHO, and donors***
19. **SFP/OTPs:** Provide adequate space for children and their caretakers by expanding and constructing adequate and well ventilated spaces, such as waiting areas and examination rooms, play areas and playgrounds	***The DoH should lead with technical support from UNICEF, WFP and donors***
20. **Stabilization Centres:** Establish a referral/follow up mechanism and forms for tracking movements between SCs and OTP and create an official protocol	***DoH with technical support from UNICEF, WHO, and donors***
21. **MAM management:** Given the scale of acute malnutrition (MAM) in Pakistan, **seek alternative approaches** to ready to use supplementary products, through researching local recipes, and strengthening IYCF through increasing numbers of COWs and Lady Health Workers.	***DoH with technical support from UNICEF, WFP, WHO, and donors***
22. **Preposition CMAM supplies** and build contingency stock to promote continuous stock availability.	***DoH with technical support from UNICEF, WFP, WHO, and donors***

Highlighted Good Practices in the Pakistan CMAM

Good Practices are well documented and assessed programming practices that provide evidence of success/impact and which are valuable for replication, scaling up and further study. They are generally based on similar experiences from different countries and contexts.

1) Community health workers, such as Lady Health Workers, Social Mobilizers and Community Outreach Workers, who are well motivated through good project management and who receive incentives, contribute substantially to the success of CMAM, by sensitizing families regarding the objectives of the program. They facilitated screening among a society where women are largely

house bound and did so because of their affiliation to the area and acquaintances and positive response from the community.

2) Community health workers who were more successful in outreach activities encouraged families to send their children to the SFP/OTP through mothers' support groups, males in the community and key leaders such as religious scholars.
3) The referral list of the children is shared and compared with the Nutritionists or Nutrition Assistants of the SFP/OTP centres to ensure that the referred children reported to the centre for further assessment and treatment.
4) Nutrition support committees (NSC) for holding meetings and advocacy seminars in all centres were successful in ensuring parents' participation in the CMAM programme.
5) Although linkages between the OTP and SCs were not fully established and weak, all SCs and Paediatric units of the hospitals were providing services to children with SAM as a part of their duty. UNICEF and WHO have made the units more service oriented by providing RUTF/F-75/F-100 milk, medicine, equipment and related supplies, refurbishing the wards and financial support for hiring Nutrition Officers/Assistants. The SCs in the teaching hospitals are also used for imparting trainings to medical students by demonstrating marasmus-kwashiorkor cases. Integration of SFP/OTP is facilitated by services performed and integrated by government health facilities, all the necessary equipment and supplies are available, and good coordination between the SFP/OTP staff and medical staff in charge of the facility.
6) Cost efficiency is stronger when fund allocation packages are standardized which improves service delivery, and allocation is coordinated and based on joint decisions following a needs based approach, such as in the Nutrition Cluster.
7) The pilot integrated non-emergency CMAM in Mardan district and the integrated program in Punjab province will provide lessons for scaling-up CMAM.

Key Lessons for the Pakistan CMAM

Lessons learned are more detailed reflections on a particular programme or operation and extraction of lessons learned through its implementation. These lessons may be positive (successes) or negative (failures). Lessons learned have undergone a wider review than innovations and have often been implemented over a longer time frame.

1) The CMAM model works effectively to treat and manage acute malnutrition but it cannot be "applied" without significant fine tuning. Assessments should identify the groups most at risk (such as children of women who are not allowed to leave their homes) as well as knowledge, attitudes and practices that challenge the application of the model (such as use of private health care providers, lack of nutrition knowledge, etc.) and recommend actions which are then designed in the planning stages.
2) One of the first considerations in planning CMAM is the cultural attitude towards caretakers' and children's participation. These may be constraints to access to women and children and should be detailed through the assessment process. In patriarchal societies, access to women and children by health workers may be limited by tradition and men's attitudes. In Pakistan, immediate involvement of men in the community in planning CMAM is important to sensitize them and necessary for successful screening, coverage and involvement of mothers and children in the programme.
3) Training needs assessment to meet individual requirements for quality job performance and more in-depth training for those who may be less experienced is important to ensure high quality and consistent services across CMAM sites. Refresher training courses are critical to test skills and bring staff up to date.

4) The non-existence of referral mechanisms between SC and OTP makes it difficult to trace children that are discharged from SCs. Protocols must be updated to address this gap in CMAM implementation.
5) All external agencies should promote sustainability when implementing CMAM and avoid the ownership of the programme to be kept largely among the external actors. Strong coordination for planning, integration, ownership, and capacity transfer is essential among the government, UN, donors and IPs.

Use of national health system resources generally reduces the cost of CMAM and with strategic development, can sustain the programme into the future. On the flip side, the national and provincial system may lack dedicated cadre/setup for nutrition related activities and combined with possible weak ownership on part of the concerned public authority, can lead to inefficient use of resources and reduced quality of the services. Thus this dilemma needs to be addressed through joint planning for all levels of the health system to create or strengthen structures and ownership as well as capacity within the health delivery system.

Annex 1: Persons Consulted

	Government of Pakistan
1.	Dr. Baseer Khan Achakzal, Deputy Director, Nutrition Wing, Ministry of Health
2.	Dr. Shabina Raza, Chief Health Sector Reform Unit, Dept. of Health, Govt. of KP
3.	Dr. Qaiser Ali, Department of Health, Govt. of KP
4.	Dr. Adnan Khattak, Department of Health, Govt. of KP
5.	Dr. Amin Jan Gandupur, Professor Paediatrics, SC Khyber Teaching Hospital, Peshawar
6.	Dr. Azamat Talat Dean, Professor of Paediatric s, SC, Hayatabad Medical Complex, Peshawar
7.	Dr. Mukhtar, Paeditrician, Tehsil Head Quarter Hospital, Chakdara
8.	Dr. Khalid Mahmud, Paediatrician, SC Kohat
9.	Dr. Javed, Head, Paediatrics, SC, Buner, Lower Dir
10.	Dr. Oazir, Paeditrician, SC, Timergara, Lower Dir
	Implementing Partners
11.	Dr. Rasheed Ahjmed, Health and Nutrition Manager, World Vision
12.	Mr. Saeed Shah Project Coordinator, PEACE, Rashakai, Nowshera
13.	Mr. Mohd Salman Project Coordinator, PEACE DIKhan
14.	Mr. Ammer Sohail Sadozai, MD SAHARA, DIKhan
15.	Dr. Fakhar Alam, Project Coordinator, RELIEF, Matta, Swat
16.	Dr. Afzal Rehman, Project Coordinator, ABSEEN, Kohat,
17.	Mr. Kamran Khan & Abdullah, SC Incharge, CERD, Timergara Lower Dir
18.	Ms. Rukhsana, Project Coordinator, RAHBAR, Buner, Lower Dir
19.	Mr. Fazal Dad, Project Coordinator, MERLIN, Khwazakhela, Swat
20.	Mr. Taj Ali , Project Coordinator, CERD, Chakdara
21.	Mohammad Javed, Project Coordinator, ABASEEN, Charbagh, Swat
	UNICEF
22.	Karen Allen, Deputy Representative, Islamabad
23.	Dr. Abdul Jamil, Chief Health and Nutrition, Peshawar
24.	Dr. Rafiq, Chief Health and Nutrition, FATA, Peshawar
25.	Aien Khan Afridi, Nutrition Officer, Peshawar
26.	Silvia Kaufmann, Chief of Nutrition, Islamabad
27.	Sarita Neupane, Nutrition Specialist, UNICEF, Islamabad
28.	Dr. Shahid Mahbub Awan, Nutrition Officer, UNICEF, Islamabad
29.	Ruksana Shereen, Nutrition Officer, UNICEF, Islamabad
30.	Teshome Feleke, Nutrition Specialist, UNICEF Islamabad
31.	Dr. Mohamed Cisse, Chief of Health, UNICEF, Islamabad
32.	Bettina Schunter, HIV Responsible, UNICEF
	Other Organizations
33.	Dr. Inaam Haq, Senior Health Specialist, The World Bank, South Asia Region, Islamabad
34.	Stacey Ballou, Senior Humanitarian Advisor, USAID
35.	Dr. Jhizar Tauseef Ahmed Ashraf, Nutrition Focal Person, WHO
36.	Dr. Mazar Khan, WHO, Nutrition Officer, Peshawar
37.	Dr. Qaiser Munir Pasha, Senior Health Advisor, AusAID
38.	Ghulam Abbas, Senior Programme Assistant, WFP, Islamabad
39.	Mona Shaikh, Nutrition Officer, WFP, Islamabad
40.	Round table at WHO Office (Eleven agency representatives attended the round table)

Annex 2: Documents Consulted

	Government of Pakistan
1.	National guidelines for the management of acute malnutrition among children under five and pregnant and lactating women, 2010, Ministry of Health, Nutrition Wing with UNICEF/WHO/Save the Children, Islamabad
2.	Pakistan: North West Frontier Province and Federally Administered Tribal Areas: Preliminary Damage and Needs Assessment Immediate Restoration and Medium Term: Reconstruction in Crisis Affected Areas, Asian Development Bank, and World Bank for Government of Pakistan, Islamabad, Pakistan
3.	Economic Survey (2010-11)
4.	Pakistan Integrated Nutrition Strategy (PINS) operational plan (July 2011-Dec 2012)
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	Other Sources
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28.	WFP, CMAM Programme Analysis Highlights, September 14, 2010
29.	UN World Food Programme-Pakistan Community Based Management of Acute Malnutrition: Program Overview, 2011
30.	Interagency Real Time Evaluation of the Humanitarian Response to Pakistan's 2010 Flood Crisis, DARA

31.	Review of Community-based Management of Acute Malnutrition (CMAM) in the Post-emergency Context: Synthesis of Lessons on Integration of CMAM into National Health Systems Ethiopia, Malawi and Niger, April – June 2007
32.	Every Body's Business Strengthening Health Systems to Improve Health Outcomes Who's Framework For Action, WHO, 2007.
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36.	World Health Statistics 2011. WHO, Geneva.
37.	Pakistan Floods Impact Assessment 2010. WFP, Pakistan
38.	Food Insecurity in Pakistan 2009. WFP, Pakistan
39.	The Express Tribune, "National Nutrition Survey 2011, Food Insecurity affecting 60% of women and children", September 18, 2011
40.	Nutrition Cluster Capacity Development Plan, December 2010,
41.	UNDP. Human Development Report 2011: Managing Natural Resources for Human Development Developing the Non-Oil Economy to Achieve the MDGs. UNDP
42.	Pakistan Humanitarian Forum: The Pakistan Floods 2010 One Year On. PHF/FAO/IMMAP/PEFSA/OCHA, Islamabad.
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Annex 3: Cost Analysis Tables

Table: Capital Costs across the CMAM Programme in Khyber Pakhtunkhwa

Sno	Item Description	UNICEF Share	IP's Share	Cost
1	Trainings/Refreshers of Project Staff on CMAM and IYCF	74,945	32,286	107,231
2	Training/Refreshers of Health Facilities Staff on CMAM & IYCF	53,398	12,294	65,692
3	Advocacy and Community Awareness Sessions at UC Level	65,341	-	65,341
4	Honoraria for Health Facilities Staff	227,054	-	227,054
5	Strengthening of target health facilities and CMAM Integration, Visibility (Furniture, Sign Boards etc.)	122,169	7,059	129,228
6	Rent of IT Equipments (Computers/Printers)	9,231	48,406	57,637
7	Top up Salary support for LHWs and LHSs	44,376	2,094	46,471
8	Top up Salary support for Nurses working in SC	31,449	6,776	38,226
9	Honoraria for Doctors and Paediatrician working in SC	30,619	3,388	34,007
10	Establishment of Stabilization Centres	37,647	11,765	49,412
11	Baseline, Endline Nutrition Surveys and Coverage Survey (100%)	58,824	-	58,824
12	Community Assessment for Outreach Strategy (100%)	11,765	-	11,765
13	Midterm & Enterm Evaluation (65%)	23,647	9,882	33,529
14	Anthropometric Equipments	127,199	-	127,199
15	IEC Material	107,284	-	107,284
16	Anthropometric Kits for SCs	53,634	-	53,634
17	Tents for Clinics	706	-	706
18	Office Furniture and Fixtures for one office	9,397	67,457	76,854
19	Computers/Printers/Cameras/Other Equipments	33,229	41,294	74,524
20	Security Costs (blast filming & barbed wire)	5,005	5,005	10,010
Total		**1,126,919**	**247,706**	**1,374,628**

Table: Recurrent Costs across the CMAM Programme in Khyber Pakhtunkhwa in US $

Sno	Item Description	UNICEF Share	IP's Share	Cost
1	Project Coordinator	188,850	-	188,850
2	Team Leaders/Doctors/Monitors	290,524	60,941	351,465
3	Nutrition Officers/Experts	135,119	19,786	154,905
4	Nutrition Assistants/LHVs	876,241	-	876,241
5	Health and Nutrition Educators (Female)	189,530	-	189,530
6	Community Mobilizers	556,524	-	556,524
7	Community Outreach Workers/Health Promoters	1,134,833	45,271	1,180,103

8	MIS Assistant/Logistics Assistants	170,194	4,941	175,135
9	Security Guards/Helpers/Support Staff	155,771	15,398	171,168
10	Staff Benefits (Insurance, EOBI, Medical/Emergency Allowance)	2,941	41,318	44,259
11	M&E Officers	10,235	-	10,235
12	Programme support IT/Admin/Finance	4,235	24,000	28,235
13	Field Monitoring Officer	1,002	-	1,002
14	Monitoring Officer (to monitor IPs activities for UNICEF)	15,294	-	15,294
15	Supplies Management Officer (To Manage MCHC UNICEF supplies)	7,647	-	7,647
16	Medical Doctor for Stabilisation Centres	14,056	-	14,056
17	Nutrition Assistant for SC	119,404	21,459	140,862
18	Communications	53,770	-	53,770
19	Stationary (including Photocopying & printing)	73,939	1,353	75,292
20	Field office and warehouse rent and supplies handling charges	103,723	10,762	114,484
21	Operating/Running Costs of Medical Clinics	7,261	2,118	9,379
22	Cleaner for SC (Honoraria)	8,791	1,453	10,244
23	Operating Costs of Stabilisation Centre	25,098	3,529	28,628
24	Cost of referrals and follow up of SAM children with SCs	61,694	-	61,694
25	Vehicle rental & operation (Fuel & Maintenance)	780,769	66,232	847,001
26	Transportation costs (Supplies carriage/handling)	11,712	-	11,712
27	Monitoring Costs for DoH (EDOH, LHWs Coordinator)	17,766	-	17,766
28	Cluster Coordination and Review Meetings	15,108	176	15,285
29	NGOs Monitoring Costs	6,529	32,845	39,374
30	Travelling and monitoring costs (include travel, per diem)	9,671	424	10,094
31	FBF, Fortified Blended Food to be provided by WFP (25kg Bags)	2,783,819	-	2,783,819
32	Multiple micronutrient pdr,sach./PAC-30	608,004	-	608,004
33	Micronutrient,film-coated tabs/PAC-1000	628,053	-	628,053
34	Folic acid 5mg tabs/PAC-1000	87,115	-	87,115
35	Therapeutic spread, sachet 92g/CAR-150	2,611,534	-	2,611,534

36	Other Supplies for CMAM (Routine Medicines, VitA, Mebendazole etc.)	209,674	-	209,674
37	Therapeutic Milk and Food for SCs	73,233	-	73,233
38	Medicines for SCs	60,279	-	60,279
39	Therapeutic Kits for SCs	45,913	-	45,913
40	Project Manager/Country Director/CEO/Coordinators	446,692	36,476	483,167
41	Operations/Finance Manager/Officer	38,481	17,909	56,390
42	Accountant/Finance/Admin Assistants	58,600	26,071	84,671
43	Admin/Logistics/HR Assistance	32,909	15,918	48,826
44	Other Administrative Costs (include staff travel, per diems, office meetings and miscellaneous)	89,879	9,882	99,761
45	Office Rent/Utilities/Supplies/Maintenance	89,040	55,469	144,510
46	ICR	17,603	3,807	21,410
Total		**12,929,059**	**517,538**	**13,446,593**

Table: Component-Wise Cost of CMAM in the Selected Districts

Sno	District	Cost Per CMAM Component			SC	Total ($)
		Community Outreach	SFP/MMS	Therapeutic Feeding OTP		
1	Buner & Shangla	424,787	280,566	427,255	418,471	**1,551,079**
2	Dir Lower	221,818	315,995	239,757	399,624	**1,177,194**
3	D.I.Khan	250,378	349,152	264,994	408,017	**1272541**
4	Kohat	45,383	101,031	83,599	391,829	**621,842**
5	Nowshera	124,746	128,466	116,058	395,359	**764,629**
6	Swabi	46,234	74,141	69,482	391,105	**580,962**
7	Swat	81,349	112,587	120,085	395,536	**709,557**
8	Swat	193,306	272,466	208,758	401,403	**1,075,933**
Total		**1,388,001**	**1,634,404**	**1,529,988**	**3,201,344**	**7,753,737**

Annex 4: Terms of Reference Questions: Pakistan CMAM Evaluation

PURPOSE AND USE

The proposed evaluation aims at strengthening of on-going and future CMAM programmes by systematically generating and disseminating evidence on CMAM experiences from 3 countries through the use of both qualitative and quantitative information related to processes, outputs, outcomes (including adherence to global standards and quality of services), coverage and scaling up options. The lessons and recommendations from the evaluation will be used by national governments, UN agencies, donors, NGOs for strengthening existing programmes as well as for advocating for leveraging resources for effective CMAM strategies and interventions in areas in need. The specific **objectives** of the evaluation are as follows:

a) To undertake analytical assessment of the progress achieved in implementing CMAM globally with detailed assessment in 3 case study countries to identify key successes, good practices, and gaps / constraints that need to be addressed.
b) To examine CMAM programme performance in the case study countries using standard OECD / DAC criteria of programme relevance/appropriateness, efficiency and quality of services, effectiveness, impact (potential) and sustainability.
c) To examine the effectiveness of related cross-cutting issues such as coordination and management; gender and other forms of equity; capacity development; advocacy and policy development; and information/data management.
d) To document good practices and generate evidence-based lessons and recommendations to strengthen on-going efforts towards expansion of CMAM coverage in countries in need and for strengthening global /regional level guidance and support.

SCOPE OF EVALUATION

The primary focus of the evaluation is to examine overall CMAM programme results and processes at the country level and to generate forward looking lessons and recommendations for strengthening and expanding planning and implementation of CMAM in needy areas. In addition, the evaluation will assess the adequacy of the global guidance and global/regional-level support and identify areas where improved guidance and support are needed. The evaluation will focus on a sample of 3 countries (including situation where CMAM has been implemented in response to a nutritional crises resulting from protracted long-term emergency) where CMAM programming has sufficiently matured to generate lessons that can be applied widely. It will examine processes and results related to all key components of CMAM namely a) community outreach; b) outpatient care for children with SAM without medical complications at decentralised health facilities and at home; c) inpatient care for children with SAM with medical complications or no appetite; and d) services for the management of moderate acute malnutrition (MAM). Given the diversity of country contexts, it may be necessary to have a slightly different TOR for each country, although the evaluation questions included in the general TOR will be common to all 3 countries.

The evaluation will generate evidence on “what works well” and “what does not work” on all key steps of the CMAM programme cycle covering community mobilization/awareness creation, case detection/screening/enrolment, treatment/feeding modality, and follow up processes. The evaluation will examine policy and programmatic aspects as well as management modalities and make recommendations to strengthen both aspects. More specifically, the evaluation will provide evidence-based analysis to answer the following questions:

Programme relevance /appropriateness

- How well has the overall CMAM programme strategy evolved and to what extent specific strategies/ interventions respond to the local/national context, needs and priorities?

- How appropriate/adequate is the global guidance on CMAM for local/national needs including various aspects related to needs assessment, programme planning/design, management /quality assurance, monitoring and evaluation?
- How adequate is the technical and organisational support that has been provided for planning and implementing CMAM?

Programme effectiveness and coverage

- To what extent have the expected outputs and outcomes been realised through the CMAM programme? If there are shortfalls, what are the contributing factors? What is the estimated coverage of CMAM services against the national level need?
- How developed and successful are the specific CMAM strategies (community outreach and mobilisation, screening/enrolment, feeding, treatment, information management, follow up) and the interventions (as per the programme logic model) in realising overall programme objectives?
- What is the contribution of the programme to national capacity-building among nutrition and health professionals and community workers, to policy and system/institutional development and to the engagement of the private sector and other key stakeholders? What conclusions can be drawn regarding the effectiveness of capacity building efforts?
- What are the key successes in generating new knowledge by the programme? Are these well documented and disseminated within the country and outside? What are the knowledge gaps which still prevent expansion of services through larger investments in CMAM?
- Are there any noteworthy good practices and lessons regarding overall programme effectiveness or the effectiveness of specific strategies, management modalities used?

Programme efficiency and quality of services

- How has the management aspect of CMAM evolved over time? How well understood and implemented are the current management mechanism including the roles and responsibilities of various staff and stakeholders?
- How systematically have the funds been allocated/utilised across programme strategies/activities to realise programme objectives? If there are delays/deviations in fund utilisation, how were these justified and what are the implications for attaining programme objectives? What lessons and recommendations can be drawn for the future?
- How operational and effective are the coordination mechanisms at the country level (i.e. coordination by the Government, including different ministries and other implementing partners, stakeholders (other UN agencies, NGOs, donors, etc.)? If noticeable gaps are evident, how can they be addressed?
- How timely and effective was UNCEF RO's and HQ's guidance and support in achieving overall goals and objectives of the programme? How successful was the coordination between NYHQ, RO and COs within UNICEF?
- To what extent does the service delivery meet expected quality standards? What factors have contributed to meeting quality standards? Where quality standards are not met, what are the key bottlenecks/constraints that need to be addressed in order to meet quality standards?
- What are per unit costs of CMAM in various contexts? Can any conclusions be drawn regarding cost-effectiveness / efficiency for treatment according to CMAM program in particular country contexts?

Programme sustainability and scaling (country level)

The evaluation will examine administrative, institutional, technical and financial sustainability and explore possible opportunities for expansion of effective CMAM interventions (drawing in addition from the other evaluation questions):

- What level of progress has been achieved to build CMAM programme's ownership by the Government and its integration in the national service health delivery system?

- How feasible are the current interventions in terms of the ability to be sustained without direct technical/financial support by UNICEF and other agencies? What factors have supported or inhibited expansion and scale up of CMAM interventions?
- What are the issues and options related to the feasibility (administrative, institutional, technical, and financial) for replication and expansion? What are the risks related to sustainability that are related to discontinuation of external support? What plans/strategies/mechanism exist for programme phase out/closure?

Programme impact (outcomes / potential impact)

- Based on longitudinal data and other type of information, what conclusions can be drawn regarding the extent to which the programme contribute to a long-term improvement in the quality of life of the children treated through CMAM?
- What is the evidence regarding national and sub-national engagement and ownership of the CMAM? To what extent has national ownership of CMAM programme increased? What are the success factors and lessons learned? Where this has not occurred fully, what are the constraints and consequent lessons for the future? Is there any evidence of increased budgetary allocations at the national level?
- How significantly has the programme contributed to either revitalize or place nutrition high on the national policy and developmental agenda?

Cross-cutting issues

- How effective is the vertical and horizontal coordination (involvement of various sectors) in planning and implementing CMAM? How strong is the national /sub-national engagement and ownership of CMAM programme (including national budget allocations)?
- How adequate is the progress achieved in implementing a national policy on CMAM or in integrating CMAM components into existing policies? What more needs to be done? What lessons can be drawn?
- How systematically has institutional capacity development been pursued at all levels for long term sustainability of the programme? What more needs to be done?
- How adequate are the guidelines on various aspects of CMAM programming? To what extent the technical support provided by various agencies is well-coordinated and responds adequately/coherently to various programmatic needs?
- To what extent gender equality existed in CMAM programmes in participation, decision making and access to CMAM services? Are there any issues related to gender, geographic or other form of equity in CMAM service delivery and access that are evident? What measures could be proposed to improved programme targeting?

Annex 5: Proposed Models of Nutrition Structure at the Provincial Level and Integration of CMAM into the Health System

A constitution of high power Provincial Nutrition Advisory Council (PNAC) under the chairmanship of Chief Secretary or Additional Chief Secretary with Secretary Health, Secretary Finance, Secretary P& D, Secretary Education, professionals from academia, representatives from research and development organizations, development partners and a selective group of implementing partners will be the first step in eliciting Government interest and commitment in the battle against malnutrition.

The Secretary Health may act as the Secretary of the PNAC and he/she may convene a quarterly meeting in consultation with the Chairman and other members of the PNAC. The PNAC should also ensure that different sectors are part of the process that would help in integration of inter-related programmes and avoiding duplications and wastage of resources. It shall constitute Provincial Nutrition Support Committee (PNSC) of technical experts to overview and prioritize the nutrition problems of the province and submits its recommendations to PNAC for consideration and approval. The PNSC would be responsible for preparing all long term (5-10 years) technical nutritional plans of the province and oversee their implementation through internal and external monitoring systems and carry out their evaluation for a future course of action. It may also develop and oversee a nutrition contingency plan for any emergency, displacement of people arising from floods, earthquakes, droughts, famine, militancy or any other outbreak of a pandemic. The restructuring and streamlining of Department of Health which is also underway is another encouraging step to make the department more efficient in service delivery and to gain credibility and trust of the people and development partners.

It is proposed that at the Provincial Level, an independent Directorate of Nutrition shall be established to undertake nutritional assessment studies in partnership with the development partners to prioritize the nutritional problems and issues, sensitize the public and political leadership to elicit their support and oversee all nutrition programs funded by the federal, provincial and international donor agencies. A detailed establishment of nutrition set-up at the provincial level has been described as under:

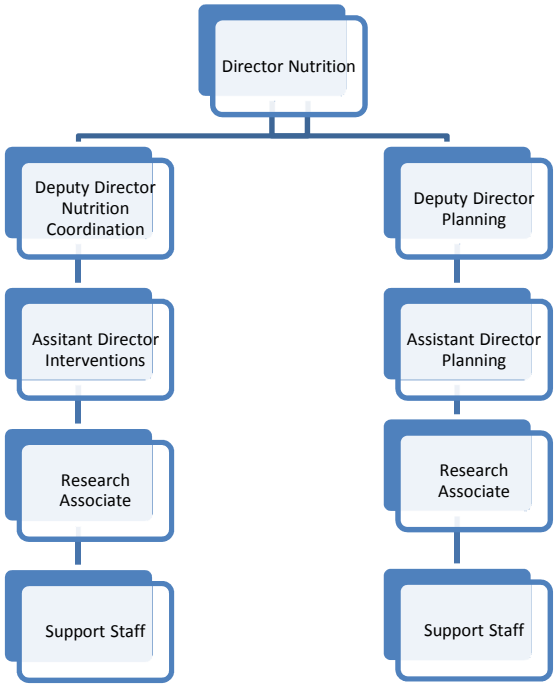

Figure: Establishment of Nutrition Set-up at Department of Health, Khyber Pakhtunkhwa.

A position of Nutrition Officer at the district level would need to be established in the office of the Executive District Officer (Health) who would be responsible for implementing the CMAM programme as well as other nutrition activities in the district. At the community level, Lady Health Visitors and health care providers based in hospitals, Rural Health Centres, Basic Health Unit and at Civil Dispensary levels would act as social mobilizers and community outreach workers by providing them additional training in nutrition and salaries to those involved in CMAM programme. However, keeping in view the workload of health care providers and their qualifications, some additional staff would need to be hired and a capacity building programme for them would be needed to efficiently run the CMAM programme. Both Government and development partners may easily develop a plan of action to share the burden within the available resources.

Proposed Model for Nutrition Interventions & CMAM Programme in Khyber Pakhtunkhwa

Effective nutrition interventions & CMAM regular programming in Khyber Pakhtunkhwa require the following:

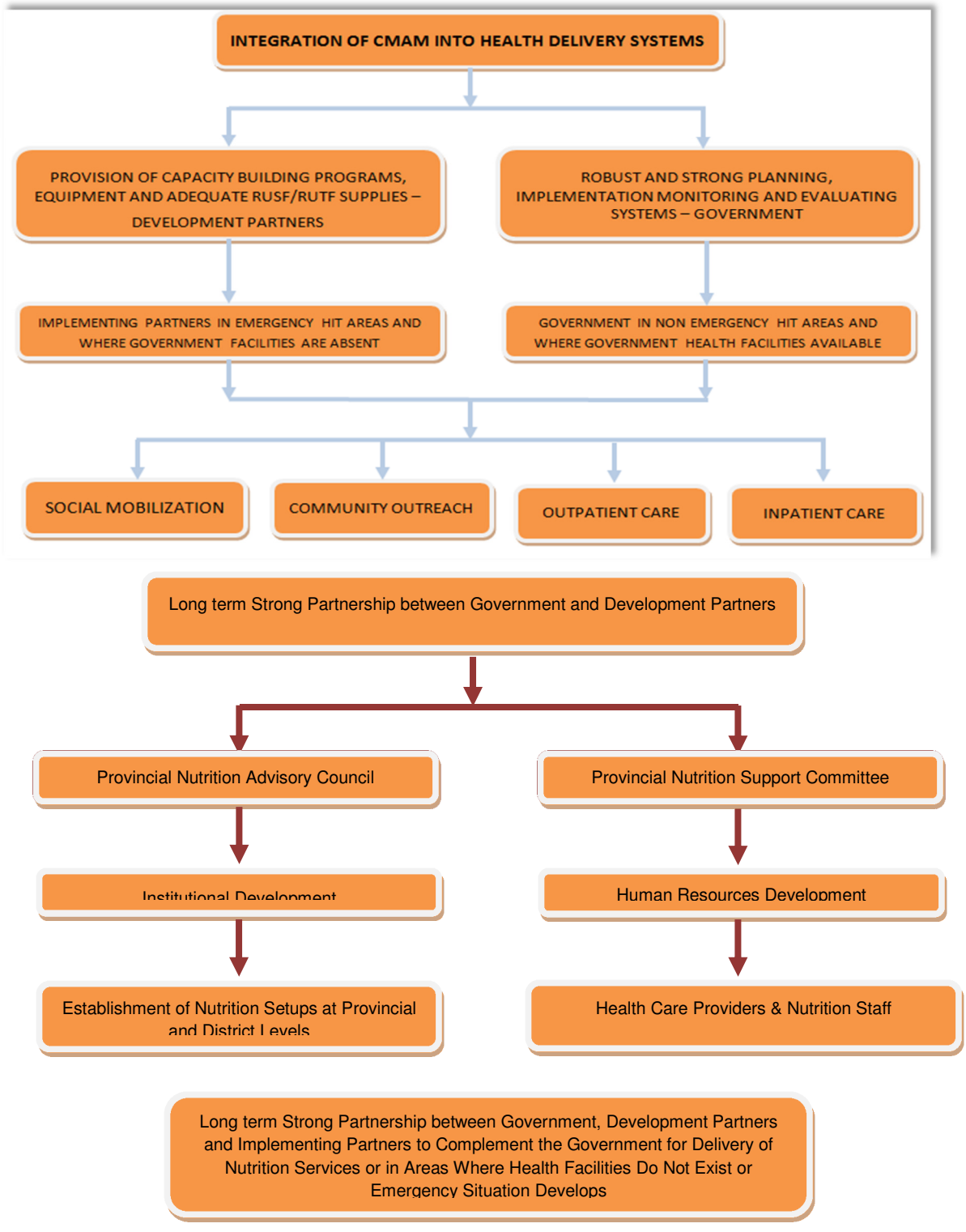

Figure: Proposed CMAM integration model