

# Knowledge, Attitudes and Practices (KAP) Survey on Infant and Young Child Feeding

Children aged 0 to 23 months living in IDP camps

Sittwe and Pauktaw Townships,

Rakhine State – Republic of the Union of Myanmar

## April 2014

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## **List of Acronyms**

ACF Action Contre la Faim
ANC Ante-Natal Care

CCCM Camp Coordination and Camp Management

CI Confidence Interval
CP Cfhild Protection
EBF Exclusive Breastfeeding
FSL Food Security and Livelihoods
GAM Global Acute Malnutrition
IDP Internally Displaced Person

GAM Global Acute Malnutrition

IDP Internally Displaced Person

ICFI Infant and Child Feeding Index

IFE Infant Feeding in Emergency

IYCF Infant and Young Child Feeding

IYCF-E Infant and Young Child Feeding in Emergencies

KAP Knowledge, Attitudes and Practices

MHAA Myanmar Healthcare Assistants Association

MICS Multiple Indicator Cluster Survey

MoH Ministry of Health NFI Non-Food Items

NGO Non-Governmental Organization
OTP Out-patient Therapeutic Programme

PHC Primary Health Care

PLW Pregnant and Lactating Women

PNC Post-Natal Care

RNA Rapid Nutrition Assessment

RSB Rice Soya Blend

SAM Severe Acute Malnutrition

SC Stabilization Centre

SCI Save the Children International

SMART Standardized Monitoring and Assessment of Relief and Transitions

TFP Therapeutic Feeding Programme

TSFP Targeted Supplementary Feeding Programme

U5 Under five

UNICEF United Nations Children's Fund

UNOCHA United Nations Office for the Coordination of Humanitarian Affairs

WASH Water, Sanitation and Hygiene WFP World Food Programme WHO World Health Organization

#### 1. Introduction

#### 1.1 Context

The Republic of the Union of Myanmar is situated between the Bay of Bengal and the Andaman Sea to the south, India and Bangladesh to the northwest, and China, Laos and Thailand to the east. By geographical area it is the 40<sup>th</sup> largest country in the world, and in terms of population it ranks 24<sup>th</sup> with an estimated 61 million inhabitants. It became an independent nation in its current form in 1948, with the military dictatorship officially ending in 2011. The government recognizes 135 distinct ethnic groups, of which the Bamar make up 68% of the population, and the Rakhine 4%. Buddhism is the predominant religion, but there are also Christians, Muslism, Hindus and others. One of the longest-running civil wars continues to impact on nine of the 14 territories to this day, placing an estimated 834,000 people in need of humanitarian assistance<sup>1</sup>. Myanmar has natural riches (jade, gems, oil, gas and other mineral sources) but ranks as the 149<sup>th</sup> of 187 countries in the 2013 Human Development Index<sup>2</sup>, the 5<sup>th</sup> lowest in the Asia/Oceania region.

#### 1.1.1 Geographic description of survey area

Rakhine state is the western-most of Myanmar's 14 states and regions, and is separated from the rest of the country by the Arakan mountains to the east, and the Bay of Bengal to the west. The state is divided into 17 Townships, two of which are Sittwe and Pauktaw. Pauktaw Township is characterized by hills, whilst Sittwe is flat. Both are coastally situated.

The area has three seasons: the rainy season (June-October), winter (November-February) and summer (March-May). The rainy season brings with it recurrent seasonal flooding, and storms which in bad years can cause destruction and damage, as in the case of Cyclone Giri in October 2010. The rainy season is also called the 'hunger gap' as labor opportunities and access to natural products such as firewood decrease, while market prices increase slightly due to reduced access.

#### 1.1.2 Description of the population

Rakhine State has an overall estimated population of 3.3 million. As one of the least developed parts of Myanmar it is characterized by high population density, malnutrition, low-income poverty and weak infrastructure. In recent times, the impact of conflict has exacerbated these challenges (as detailed in section 1.1.3 below).

The largest town in the zone is Sittwe, with numerous smaller towns stretched along the coast. In Sittwe and Pauktaw Townships, the majority of inhabitants lived in urban or peri-urban coastal settings before the conflict. There are however also rural villages, some of which are geographically isolated. Due to the coastal nature of the area and poor internal infrastructure, particularly during rainy season, many of these towns are only connected to each other by boat.

The main livelihood activities in the urban population revolve around business/trade and labor. For the more rural areas they are fishing and agriculture. In general, the production and trade in fish and seafood products is followed by in the production of basic commodities such as rice and other food items, as well as the provision of services including transportation (trishaw, motor tri-shaw etc) and food/drink outlets. Men largely conduct activities related to large-scale business, fishing, transportation and heavy manual labor, while women are largely engaged in petty trade, food/drink sales and casual labor involving the sorting and cleaning of seafood items. Prior to the conflict, the majority of middle income and better off households owned significant land and/or were engaged in fishing, while poorer laborers found work

<sup>&</sup>lt;sup>1</sup> UNOCHA (2014) Myanmar Strategic Response Plan (draft)

<sup>&</sup>lt;sup>2</sup> UNDP. 2013. Human development index.

within fishing, agriculture and petty trade. Since the conflict, rural camp populations face movement restrictions, and therefore have little access to sea, land or other productive assets. Main markets and business centres also remain inaccessible, limiting opportunities for work, and leading to an increase in commodity prices for most goods of 10-20%. All communities within the area have seen an increase in fish and labor prices, as these were primarily areas of high Muslim involvement<sup>3</sup>.

The two main population groups in the state are the Rakhine, predominantly Buddhist, and the Rohingya, a Muslim minority not recognized as citizens by the Myanmar government and therefore stateless. There has been long-standing tension and division between them.

#### 1.1.3 Conflict History

In early June 2012, conflict erupted between the two communities, resulting in the Myanmar government declaring a state of emergency. The widespread violence in and around the state capital of Sittwe claimed 78 lives, 4800 buildings were destroyed and population displacements forced 75,000 people from both communities to seek shelter in makeshift camps<sup>4</sup>. Widespread violence again broke out in surrounding Townships in October 2012, including Pauktaw. Eighty-eight people were reported killed and thousands of homes were razed. An estimated further 64,000 people were displaced, the majority to hard-to-reach areas.

Temporary shelters were built, and the government worked with international and national humanitarian agencies to cover life-saving needs such as food, Non-Food Items (NFI), healthcare, Water, Sanitation and Hygiene (WASH) and education services. However, over a year and a half since the beginning of the crisis, the situation remains severe; for 2014, an estimated 314,000 people (almost 10% of the population) are deemed in need of humanitarian assistance across the state<sup>5</sup>.

At the time of the survey, official figures from the Camp Coordination & Camp Management (CCCM) Cluster reported that there were still approximately 138,833 Internally Displaced People (IDP)<sup>6</sup>. 110,000 IDPs live in one of 68 camps across the state, whilst 28,000 others have sheltered in host communities. A further 36,000 people in isolated villages (both Muslim and Rakhine) are considered extremely vulnerable<sup>7</sup>.

In Sittwe Township, the IDP camp population stands at 93,707<sup>8</sup>. 4,247 are Rakhine and the rest are Muslim. In Pauktaw Township, camps shelter 17,515 IDPs. The majority are Muslim IDPs, with the exception of 97 Rakhine. Numbers continue to fluctuate and further displacement is likely, both in light of camp-relocations instigated by local authorities, as well as by IDPs themselves. An estimated 24,000 Muslims have fled the country, mostly by dangerous sea crossings, which have already claimed some 400 lives<sup>9</sup>. Simultaneously, camp population sizes are increasing due to the movement restrictions and harsh conditions found in the host communities and surrounding areas<sup>10</sup>. Tensions remain high and there is a risk of further conflict in 2014.

#### 1.1.4 Services and humanitarian assistance

After the latest camp re-organization by the Rakhine State Government in September 2013, there are officially 5 urban and 12 rural IDP camps in Sittwe Township, and 1 urban and 4 rural IDP camps in Pauktaw Township<sup>11</sup> (see appendix 5 for names). In this context, urban camps host Rakhine populations and are defined by their closer proximity to town. Rural camps house Muslim populations and are mainly situated on flood plains (Pauktaw) and in coastal fields (Sittwe). All IDP communities, particularly rural ones, are still

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<sup>&</sup>lt;sup>3</sup>Rapid HEA, August 2013, SCI and Oxfam

<sup>&</sup>lt;sup>4</sup> Official Ministry of Information figures, 28<sup>th</sup> June 2012

<sup>&</sup>lt;sup>5</sup> UNOCHA (2014) Myanmar Strategic Response Plan (draft)

<sup>&</sup>lt;sup>6</sup> CCCM November 2013

<sup>&</sup>lt;sup>7</sup> UNOCHA (2014) Myanmar Strategic Response Plan (draft)

<sup>&</sup>lt;sup>8</sup> CCCM November 2013

<sup>&</sup>lt;sup>9</sup> UNOCHA (2014) Myanmar Strategic Response Plan (draft)

<sup>&</sup>lt;sup>10</sup> Rapid HEA, August 2013, SCI and Oxfam

<sup>&</sup>lt;sup>11</sup> CCCM November data

almost entirely reliant on humanitarian aid to cover all their basic needs. At present there clusters/ sectors operating for Food, Shelter, NFI, WASH, Protection, Education, Early Recovery, CCCM, Health and Nutrition.

Although the majority of those affected are Muslim, both communities have suffered and have received humanitarian assistance. However, distrust and misperceptions about humanitarian aid continue to constrain access to vulnerable groups, as evidenced most recently with the suspension of MSF's activities in February 2014, as well as the anti-Non Governmental Organization (NGO) rioting in March 2014 and subsequent limited humanitarian activity.

#### 1.1. 5 Nutrition & health context

An initial joint Rapid Nutrition Assessment (RNA) in Sittwe in July 2012 indicated a 23.4% (20.4 - 26.7 95% C.I) prevalence of Global Acute Malnutrition (GAM) in the IDP locations assessed, of which 7.5% (5.8-9.7 95% CI) were severely acutely malnourished (SAM). Results highlighted an urgent need for blanket supplementary feeding, therapeutic feeding interventions and support for Infant and Young Child Feeding practices in emergencies (IYCF-E). Since then, Save the Children International (SCI) has conducted two SMART surveys in the area, in December 2012 and 2013. The 2013 results highlight concerning rates of GAM in Sittwe urban and rural IDP camps, with 10.7 % (7.0 - 16.2 95% C.I.) and 9.5% (6.8 - 13.0 95% C.I.) respectively. Furthermore, in Pauktaw rural IDP camps, the GAM rate at 16.4 % (12.5 - 21.3 95% C.I.) falls above World Health Organization's (WHO) 15% emergency threshold, with the SAM rate of 1.8 % (0.8 - 4.2 95% C.I.) close to UNICEF's 2% critical threshold. Global stunting and underweight were above or close to WHO's 40% emergency thresholds in all three strata. For a comparison to the rest of the country, the 2009-2010 Multiple Indicator Cluster Survey (MICS) highlighted 10.0% GAM and 2.1% SAM rates globally. 47.8% of children were stunted. Rural areas were more affected by stunting and wasting, and undernutrition was most common in Rakhine and Chin states<sup>13</sup>.

SCI's response in Pauktaw and Sittwe Townships encompasses nutrition, food aid, WASH, Child Protection (CP) and education activities. Its main approach is to strengthen community-based activities, and to continue fostering acceptance by working with all communities. In response to the needs identified in the above assessments, the SCI nutrition program started implementing Infant and Young Child Feeding (IYCF) activities in Sittwe Township in September 2012, expanding in August 2013 to Pauktaw Township. In addition, Ante-Natal and Post-Natal Care (ANC/ PNC) services to optimize mother and infant health were started in both Townships, as well the treatment of SAM through an Outpatient Therapeutic Programme (OTP) in Pauktaw. SCI currently leads the nutrition sector's IYCF sub-sector group.

Other nutrition actors cover the rest of the Therapeutic and Targeted Supplementary Feeding Programme (TFP, TSFP) in Sittwe and Pauktaw for all IDP camps (see appendix 6 for a map and list of actors per area). There was a Stabilisation Centre (SC) in in MSF's rural Sittwe clinic until February 2014, when the Myanmar government suspended all MSF activities in Rakhine state. Another SC is run by the Ministry of Health (MoH) in Sittwe hospital. It accepts referrals from Pauktaw, but caretakers are often afraid to go to Sittwe due to the tensions. SFP services delivered by the Myanmar Healthcare Assistants Association (MHAA) were suspended in November 2013 pending further funding. WFP has since started providing Gift in Kind rations to MHAA for the resumption of services, although at present MHAA receive no operational support for the implementation of SFP activities. All actors include counselling on IYCF practices as part of these services, but SCI and Action Contre la Faim (ACF) are the sole actors to implement specific IYCF activities. These include mother-to-mother support groups, focus groups, health education/ behaviour change communication sessions, cooking demonstrations, one-to-one counselling for breastfeeding problems and Infant Feeding in Emergency (IFE) kit distributions.

<sup>&</sup>lt;sup>12</sup>Revised Rakhine Response Plan July 2012-June 2013, 16 November 2012

 $<sup>^{13}</sup>$  MNPED, MoH, UNICEF. 2010. Multiple Indicator Cluster Survey 2009-2010

All IDPs receive World Food Programme (WFP) food rations, with supplementary rations given to Pregnant and Lactating Women (PLW) and children under five (U5) years of age<sup>14</sup>.

A host of health actors run Primary Health Care (PHC) clinics across both Townships, including ANC/PNC and delivery services (see appendix 6 for maps and actor per camp). However, needs are not all met, particularly for Pauktaw communities who are more remote, and are often afraid to transfer to secondary care in Sittwe hospital. In addition, since MSF's weekly PHC clinic was suspended in February 2014, Pauktaw camps have not had regular mobile clinic services.

In terms of routine health activities, immunisation has not resumed since the start of the crisis. The last mass vaccination campaign in Rakhine State occurred in March 2012 (22<sup>nd</sup>-31<sup>st</sup>). The last vitamin A supplementation/ deworming campaign by MoH, in collaboration with NGOs was conducted from 28<sup>th</sup>-31<sup>st</sup> August 2013.

#### 1.1.6 IYCF practices

As highlighted in the CARE guidelines, more than 9 million children under 5 years of age die each year globally. 70% of these deaths occur in the first year of life, with malnutrition the major cause. IYCF practices directly impact on nutritional status and therefore the survival of children under 2 years of age. <sup>15</sup>IYCF activities are an essential part of any nutrition program, especially in an humanitarian crisis when IYCF practices may be affected.

Prior to the survey, some information on IYCF practices existed from SCI's nutrition program, including from focus groups. However, there was limited formal IYCF data available. SCI's 2012 SMART survey for Sittwe and the 2012 RNA's for Sittwe and Pauktaw IDP camps provide the following overview: in Sittwe 35% of caretakers reported having experienced infant feeding problems at the start of the crisis in July 2012, with 27% citing reduced milk production. 24% responded that between 10 and 25% of the children in their camps were infant formula dependants. According to the December 2012 SMART survey, exclusive breastfeeding (EBF) rates amongst 0-6 month infants was at 13.3% in urban Sittwe and 6.2% in rural Sittwe. Timely breastfeeding initiation occurred in 61.6% of rural infants and 51.1% of urban infants. At 24 months, 35.5% of the urban and 26.5% of the rural Sittwe infants were still receiving breast milk. Timely complimentary feeding had occurred for 21.2% of urban infants, whilst in only 12.8% for rural ones.

In Pauktaw, 34% of IDP camp infants had received EBF, and contined breastfeeding was currently being followed by 86.2% of cases. The Infant and Child Feeding Index (ICFI) score, a composite indicator of breastfeeding, dietary diversity and meal frequency rates, stood at 10.9%. This indicates differing issues across the target populations, but also a general concern for the inadequacy of current IYCF practices.

For a national comparison, the 2009-2010 MICS highlighted that 75.8% of Myanmar mothers initiate breastfeeding within one hour of birth, and that timely initiation increases with a mother's level of education and wealth, as well as in the urban setting. 23.6% cent of children are exclusively breastfed, with slightly higher prevalence rates in rural than in urban areas. Exclusive breastfeeding rates range from 1.3% in Rakhine to 40.6% in Kachin. By age 12-15 months 91% children are still breastfed, reducing to 65.4% at age 20-23 months. Continued breastfeeding of children aged 20-23 months is more common in rural areas than in urban areas, and is least common among mothers with higher education or considerable wealth. 80.9% of children aged 6-9 months receive breast milk and solid or semi-solid foods. Due to low levels of EBF, only 41% of children aged 0-11 months are adequately fed. This pattern was observed across both urban and rural settings<sup>16</sup>.

In order to determine IYCF practices and ANC in Sittwe and Pauktaw IDP camps, SCI conducted this Knowledge, Attitudes and Practices (KAP) assessment from 26<sup>th</sup> November- 21st December 2013.

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<sup>&</sup>lt;sup>14</sup> IDP emergency relief ration (per person per month): 13.5kg rice, 1.8kg pulses, 0.91l oil, 0.15kg salt, 3.8kg blended food (rice soya blend), supplementary ration: 3.8kg blended food

<sup>&</sup>lt;sup>15</sup> Infant and Young Child Feeding Practices: Collecting and Using Data: A Step-by- Step Guide. Cooperative for Assistance and Relief Everywhere, Inc. (CARE). 2010

<sup>&</sup>lt;sup>16</sup> MNPED, MoH, UNICEF. 2010. Multiple Indicator Cluster Survey 2009-2010

## 1.2 Survey Objectives

## **Main Objective**

To assess trends in IYCF practices for children aged 0 to 23 months living in IDP camps in Sittwe and Pauktaw Townships, Rakhine State, Myanmar.

## **Specific Objectives**

- To establish IYCF baseline indicators for children aged from 0 to 23 months
- To obtain additional qualitative information on IYCF practices and beliefs
- To assess caregivers' perception of current SCI nutrition interventions and their knowledge on IYCF
- To collect information on ante-natal

## 2. Methodology

Data collection took place from 26<sup>th</sup> November to 21<sup>st</sup> December 2013 in rural IDP camps of Sittwe and Pauktaw Townships, and in urban IDP camps in Sittwe Township.

CARE's KAP Guide was used as a basis for this survey<sup>17</sup>.

#### 2.1 Sampling Method

In light of the availability of up-to-date population data, **simple random sampling** was used for data collection. This method should be used whenever possible, as it introduces the least amount of sampling bias

Population data was available from SCI nutrition program's exhaustive under-two population lists. These had been updated at the end October/ beginning November 2013, and were cross-checked with United Nations Organization for the Coordination of Humanitarian Affairs (UNOCHA) camp figures.

This survey will be used as a baseline against which to measure change. As such it will feed into the SCI nutrition program's regular IYCF monitoring.

#### 2.2 Sample Size

Three strata were identified, based on contextual homogeneity: Sittwe/ Pauktaw Urban, Sittwe Rural and Pauktaw Rural. The strata were defined based on factors such as access to food, healthcare, livelihoods, water & sanitation, population type & their health beliefs and practices, as well as duration of exposure to SCI's IYCF programming so far. It was important to separate the survey's target populations in this way, to be able to measure the differences in each area, and to be able to adjust program activities accordingly.

Due to the lack of access upon starting the survey, which persisted two weeks into data-collection, the Sittwe/ Pauktaw urban sample was recalculated to include solely Sittwe.

The sample size calculation was based on seven IYCF core indicators and the expected impact of the project in the area. The 'power' was established at the standard 20% as per the CARE KAP calculator, and 'design effect' was 1 (as the method used was simple random sampling). Precision was adjusted within the recommended range to maintain a feasible sample size. The resulting sample size was multiplied by four to take account of the four 6-month age ranges covered (0-23 months). Finally, 10% was added for refusals/incomplete interviews, based on previous nutrition survey experiences in the area as well as CARE recommendations.

The estimated prevalence values summarised below were based on discussions with partners and field teams, as well as IYCF data from previous surveys.

The expected impact of change varies between indicators and target populations. This is due to varying degrees of ongoing population movement, program access, the duration of SCI's intervention at the time of survey, as well as strength of traditional practices and beliefs for specific behaviours.

The CARE sample calculator produced the following final sample sizes per stratum:

- exhaustive for Sittwe Urban (the original sample size of 868 exceeds actual U2 population of 126)
- 710 for Sittwe Rural
- 781 for Pauktaw Rural

<sup>&</sup>lt;sup>17</sup> Infant and Young Child Feeding Practices: Collecting and Using Data: A Step-by- Step Guide. Cooperative for Assistance and Relief Everywhere, Inc. (CARE). 2010.

The table below summarises the baseline and end-line prevalence estimates used for calculating the sample size.

Table 1: Expected IYCF indicator prevalence and sample size

	Sittwe L	Jrban	Sittwe R	ural	Pauktaw	Rural
			Estimated	prevalenc	e	
Indicator	point 1*	point 2*	point 1	point 2	point 1	point 2
Timely initiation of breastfeeding	46%	66%	62%	75%	30%	65%
Exclusive breastfeeding <6 months	9%	20%	6%	16%	2%	12%
Timely complementary feeding	26%	38%	13%	25%	4%	14%
Introduction of solid, semi-solid or soft foods	58%	73%	57%	70%	50%	65%
Continued breastfeeding at 1 year	48%	80%	37%	77%	75%	85%
Minimum dietary diversity	50%	68%	20%	35%	8%	18%
Minimum meal frequency	58%	76%	65%	90%	30%	45%
Minimum acceptable diet	55%	70%	15%	30%	6%	16%
Consumption of iron-rich or iron-fortified foods	45%	50%	80%	85%	80%	85%
Bottle feeding	24%	14%	17%	7%	5%	2%
Sample Size	Exhaust	ive	710		781	

<sup>\*</sup>point 1= baseline, point 2= end-line

## 2.3 Sampling Procedure: Selecting Children

The 0-23 month old child, hereafter referred to as 'child', was classed as the primary sampling unit. All living children were part of the sample for this assessment; no child was excluded from the survey unless he/she had reached 24 months on the day of the interview.

The unit selection was completed using simple random sampling: all children in the population lists were given a unique number, and ENA software was used to generate random number tables taking into account the respective stratum's sample size.

The mother or primary caretaker of all selected children was interviewed to collect data on IYCF, ANC/PNC and program knowledge and perceptions.

#### 2.3.1 Special Cases

- Absence of child: when the child was absent, the existence of the child as well as his/ her age was
  confirmed by the family, and the interview was carried out with the mother. If the child was dead, no
  interview was held, an identification number was given to record the child in the non-response
  category, and the child was not replaced.
- **Absence of mother:** in case the mother was not living with the child anymore, the primary caretaker (sister, grandmother, aunty etc) was selected as the respondent. If no caretaker was present, the team returned to the house later during the day or the next day. If still no caretaker was found, an identification number for non-response was recorded. The child was not replaced.

- **Refusal:** in case of refusal from the parents to perform the interview, an identifying number was given to the child to record him/ her in the non-response category. The child was not replaced.
- Absence of household: when a house was empty and neighbours confirmed that the family slept in the house the previous night and would come back (=house not abandoned), the team returned there at the end of the day. When it was not possible to return at the end of the day or when people were still absent at the second visit, an identifying number was given to the child and it was recorded as absent. The child was not replaced.
- Transfer: recent population movement from one camp to another occurred between the listing/ sampling time and the day of the interview. This was due to the end of the rainy season (a time of improved transport opportunities and safer routes, awaited by many to leave elsewhere in search of better job opportunities), as well as government-led camp-population movements. If a family moved within the intervention area, the child was still part of the survey and his/her mother was interviewed. If the family had moved out from the intervention area, the child was not considered as part of the sample. An identifying number was given to the child and the child was not replaced.
- Age uncertainty: in case a caretaker was unsure of the exact date of birth of the child, the 15<sup>th</sup> of the month was used. If a child did not meet the inclusion criteria of 0-23 months, an identifying number was given to the child and the caretaker was not interviewed. The child was not replaced.
- **Disability:** children with a disability were eligible and included in this survey.

Malnourished children detected during this assessment were referred to the nearest Out-patient Therapeutic Program (OTP) centre run by ACF or SCI. A referral slip was given to the caretaker and a record with all the information was handed over to the ACF field team in order to verify if referrals effectively arrived/ or 'A referral slip was given to the caretaker, and they were accompanied to the nearest OTP by an SCI staff member or volunteer.

### 2.4 Programme Targets and Indicators

The SCI nutrition project's aim is to promote optimal IYCF through:

- early initiation (within one hour of birth) of exclusive breastfeeding
- exclusive breastfeeding for the first six months of life
- timely, nutritionally adequate and safe complementary foods after 6 complete months
- Continued breastfeeding for up to two years of age or beyond

Knowledge on these 4 aspects was assessed during this KAP survey. It is expected that by the end of the project at least 80% of the respondent participating in the program will know at least 3 of these IYCF principles.

Analysis will cover the whole target population, to ascertain to what extent the program has also impacted mothers/ caretakers who have so far not participated in program activities.

In relation to ANC/PNC, this program aims to improve the access and use of ANC/PNC services by pregnant and lactating women (PLW).

#### 2.4.1 IYCF Baseline Indicators: Definitions and Formulas

**1.** *Timely initiation of breastfeeding (children 0-23 months):* Proportion of children 0-23 months who were put to the breast within the first hour of birth.

Number of children 0-23 months who were put to the breast within the first hour of birth

**2.** Exclusive breastfeeding under 6 months: Proportion of infant 0-5 months of age who were fed exclusively with breast milk in the past 24 hours (no other liquids not even water with the exception of drops or syrup consisting of vitamins, mineral supplements or medicines).

This definition follows the WHO 2001 recommendation<sup>18</sup>.

Number of infants 0-5 months who received breast milk in the past 24 hours and did not receive any other foods or liquids in the past 24 hours

Total number of infant 0-5 months old

**3. Timely complementary feeding:** Percent of infants 6-9 months of age who receive breast milk and a solid or semi-solid in the previous 24 hours. Solid, Semi-solid and soft foods are defined as mushy or solid foods, not fluids. They should be included after 6 completed months (180 days).

Number of infants 6-9 months who breastfed in the past 24 hours and who also received at least one food in the past 24 hours

Total number of infant 6-9 months

**4.** Introduction of solid, semi-solid or soft foods: Proportion of infants 6-8 months who receive solid, semi-solid or soft foods.

Number of infant 6-8 months who received at least one food in the past 24 hours

Total number of infant 6-8 months

5. Continued breastfeeding at 1 year: Proportion of children 12-15 months old who are fed breast milk.

Number of children 12-15 months who received breast milk in the past 24 hours

Total number of children 12-15 months

This report also considers an alternative indicator suggested by WHO: continued breastfeeding at 2 years of age (when children are 20-23 months).

- **6. Minimum dietary diversity:** Proportion of children 6-23 months who received food from 4 or more food groups in the past 24 hours. The 7 food groups used to calculate this indicator are:
  - 1) Grain, roots tubers
  - 2) Legumes and nuts
  - 3) Dairy products (milk, yoghurt or cheese)
  - 4) Flesh foods (meat, fish, poultry, liver/organ meats)
  - 5) Fggs
  - 6) Vitamin A rich fruits and vegetable
  - 7) Other fruits and vegetables.

Number of children 6-23 months who received food from 4 or more of the 7 food groups in the past 24 hours

 $<sup>^{\</sup>rm 18}$  WHO (2001): The optimal duration of exclusive breastfeeding. Report of an Expert Consultation.

**7.** *Minimum meal frequency:* Proportion of breastfed and non-breastfed children 6-23 months of age who receive solid, semi-solid or soft foods the minimum number of times or more.

The expected number of meals depends on whether or not the child is breastfed, leading to two calculations as follows:

- If children are breastfed: 2 times meal/snacks for 6-8 months, 3 times for 9-23 months.
- If they are not breastfed: 4 times for 6-23 months.

Number of children 6-23 months who received solid, semi-solid or soft foods the minimum number of times or more during the previous day

Total number of children 6-23 months

**8. Minimum acceptable diet:** Proportion of children 6-23 months of age who receive a minimum acceptable diet (apart from breast milk). Calculation performed separately for breastfed and non-breastfed children.

Number of children 6-23 months who had at least the minimum dietary diversity and minimum meal frequency in the past 24 hours

Total number of children 6-23 months

**9. Consumption of iron-rich or iron-fortified foods:** Proportion of children 6-23 months old who receive an iron rich or iron-fortified food that is specially designed for infants and young children or that is fortified in the home.

Number of children 6-23 months who received at least one iron-rich or iron-fortified food

Total number of children 6-23 months

**10. Bottle feeding:** Proportion of children 6-23 months who were fed with a bottle during the previous day.

Number of children 6-23 months who were fed with a bottle during the previous 24 hours

Total number of children 6-23 months

## 2.5 Questionnaire, Training and Supervision

#### 2.5.1 Questionnaire

The survey questionnaire is provided in annex 1 of this report. It covers IYCF principles, SCI program perception and ANC/PNC behaviour. WASH and Food Security and Livelihoods (FSL) surveys were being conducted with the same population around the same time; such questions were therefore avoided to avoid participant survey fatigue.

This KAP survey covered households with children under 2 currently living in IDP camps. The results therefore cannot be extrapolated to the entire population, or to host communities.

#### 2.5.2 Training and Supervision

Recruitment included a combination of local and national surveyors, with varying levels of survey experience. A total of 20 people were trained for 2 days. Theoretical training covered assessment methodology, sampling options, interview technique, the questionnaire and other assessment tools (event calendar). Theory was completed by several practical exercises (role play) that allowed correction and other adjustments.

The overall training was completed with a one day field test on non-selected children to recreate real work conditions and enable each team to get familiar with all work aspects (introduction/ survey explanation, finding of selected children, questionnaire completion, team organization). Children included in the field test were not part of the survey sample. Post-training tests were used by the field team manager to determine optimal team composition.

The KAP teams were composed of pairs of interviewers. One set of the guidelines with key instructions and a materiel kit was provided to each team member. There was a team leader per sample who supervised the interviews to ensure quality, as well as checked the completed questionnaires at the end of each day.

One person entered the data every evening, which was checked by an additional person. Throughout the data collection period, teams were supervised by SCI daily.

Data collected were entered every evening using Microsoft Excel and the updated database was quality checked daily by the field team manager. A meeting was then held the next day to provide feedback and make readjustments/ return questionnaires that needed correcting to the respective field or data entry teams.

#### 2.6 Data cleaning and analysis

Data cleaning and analysis was performed according to the CARE guidelines in the following order:

- 1. Finding cases with missing data or individuals who should not be in the dataset
- 2. Visually scanning data to make sure they are clean
- 3. Range checks
- 4. Consistency checks

As mentioned above, data were checked daily for data quality analysis, and feedback provided to the teams. The team went back to correct any inconsistencies with the caretaker in question. Possible data entry errors were also checked.

'Don't know' responses were treated as missing data and were not included in the numerator or denominator for any indicator. They were however kept for programmatic purposes, to identify areas of further discussion/ activity.

All data for children were deleted from the database if they fell outside the 0-23 age range, or had key data missing that prevented the calculation of the 10 core IYCF indicators.

Microsoft Excel was used to perform data analysis via the CARE Chi<sup>2</sup>-test calculator, in order to explore statistical linkages between parameters (when relevant).

### 3. Results

## 3.1 Sample characteristics

The initial sample size had anticipated a non-response rate of 10%. Due to security issues and reduced access, reaching sufficient beneficiaries took longer. In the end, sufficient numbers were found for all strata, except in Pauktaw rural, where a non-response rate of a further 1% was noted. The sex ratios for each sample are within normal range<sup>19</sup>. Details per stratum can be found in the table below.

Table 2: Sample non-response rate and sex ratio per stratum

	Planned	Completed	Non-response	Sex ratio
<b>URBAN Sittwe</b>	126	126	0%	0.9
<b>RURAL Sittwe</b>	710	741	+4%	1.0
<b>RURAL Pauktaw</b>	781	772	1%	1.0

## 3.2 Infant and young child feeding

The table below summarises the ten key IYCF indicators in terms of their estimated prevalence, the program targets, as well as the prevalence rate found in this survey.

**Table 3: Summary findings on IYCF CARE indicators** 

Sample	Indicator	Estimated baseline prevalence	Target endline prevalence	RESULTS
<b>URBAN Sittwe</b>	Timely initiation of breastfeeding (0-23m)	46%	66%	60%
	Exclusive breastfeeding under 6 months	9%	20%	67%
	Timely complementary feeding	26%	38%	79%
	Introduction of solid, semi-solid or soft foods	58%	73%	76%
	Continued breastfeeding at 1 year	48%	80%	100%
	Minimum dietary diversity	50%	68%	65%
	Minimum meal frequency	58%	76%	76%
	Minimum acceptable diet	55%	70%	56%
	Consumption of iron-rich or iron-fortified foods	45%	50%	81%
	Bottle feeding	24%	14%	10%
<b>RURAL Sittwe</b>	Timely initiation of breastfeeding (0-23m)	62%	75%	78%
	Exclusive breastfeeding under 6 months	6%	16%	80%
	Timely complementary feeding	13%	25%	82%
	Introduction of solid, semi-solid or soft foods	57%	70%	81%
	Continued breastfeeding at 1 year	37%	77%	96%
	Minimum dietary diversity	20%	35%	62%
	Minimum meal frequency	65%	90%	80%
	Minimum acceptable diet	15%	30%	54%
	Consumption of iron-rich or iron-fortified foods	80%	85%	78%
	Bottle feeding	17%	7%	6%
RURAL	Timely initiation of breastfeeding (0-23m)	30%	65%	37%
Pauktaw	Exclusive breastfeeding under 6 months	2%	12%	68%
	Timely complementary feeding	4%	14%	63%

<sup>&</sup>lt;sup>19</sup> Sex ratio normal range: [0.8-1.2]

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Introduction of solid, semi-solid or soft foods	50%	65%	61%	
Continued breastfeeding at 1 year	75%	85%	81%	
Minimum dietary diversity	8%	18%	46%	
Minimum meal frequency	30%	45%	60%	
Minimum acceptable diet	6%	16%	41%	
Consumption of iron-rich or iron-fortified foods	80%	85%	78%	
Bottle feeding	5%	2%	21%	

#### 3.2.1 Breastfeeding practices

#### 3.2.1.1 Initiation of breastfeeding

To ensure optimal infant nutrition and decrease neo-natal mortality by up to 22%, international recommendations are to start initiating breastfeeding within the first hour of life.

Table 4: Timely initiation of breastfeeding among children aged 0-23 months

		Yes		No	
	N	n	%	n	%
<b>URBAN Sittwe</b>	126	76	60%	50	40%
<b>RURAL Sittwe</b>	739	577	78%	162	22%
RURAL Pauktaw	772	287	37%	485	63%

The current practice is quite good in Sittwe, with 60% and 78% of breastfeeding initiation happening within the first hour after birth for urban and rural camps respectively. This is an increase against the levels recorded in the December 2012 SMART survey, where 51% and 62% of infants received timely breastfeeding respectively. In Pauktaw the rate is at a worrying 37% only. There was a significant difference between samples (P=0.0000).

The main cited reasons for initiating breastfeeding after birth – within 1 hour or not – was because it was considered good for the child (69% for urban Sittwe, 82% for rural Sittwe, 58% for rural Pauktaw) and because their 'baby was crying' (5% urban Sittwe, 7% PR). The reasons mentioned for delaying initiation were mother's sickness (10% urban Sittwe, 9% rural Sittwe, 17% PR), lack of breastmilk/ other (19% SU, 3% rural Sittwe, 16% PR) misconceptions around colostrum being bad for the baby (2% rural Sittwe, 6% PR), and baby needing to drink/eat other things before being able to start breastfeeding (4% rural Sittwe, 2% PR).

The main decision maker on when to initiate breastfeeding was the mother in most cases (68% urban Sittwe, 63% rural Sittwe, 70% rural Pauktaw). Results showed that medical staff/nurses impact significantly in the urban setting (20% urban Sittwe, 3% rural Sittwe, 1% rural Pauktaw), but that traditional birth attendants (TBA) continued to play a greater role in rural camps (1% urban Sittwe, 14% rural Sittwe, 13% rural Pauktaw). This may be due in part to less access to healthcare in rural camps. The influence of mothers/mothers-in-law is not to be forgotten (11% urban Sittwe, 16% rural Sittwe, 14% rural Pauktaw). Sittwe rural was the only sample where BFCou/ SCI program activities were also quoted as being a source of decision-making (3%). In all strata, other family members such as husbands seem to play a minor role in the initiation of breastfeeding.

Nurses facilitated the initiation of breastfeeding within an hour of birth in 64% of the cases in urban camps, whilst TBAs did the same 74% and 37% of the cases in rural Sittwe and rural Pauktaw respectively.

#### 3.2.1.2 Exclusive breastfeeding

Table 5: Exclusive breastfeeding rate among children aged 0-5 months

		Yes		No	
	N	n	%	n	%
<b>URBAN Sittwe</b>	21	14	67%	7	33%

<b>RURAL Sittwe</b>	244	194	80%	50	20%
RURAL Pauktaw	90	61	68%	29	32%

The exclusive breastfeeding (EBF) rate is far above the project's endline targets in all three samples, with 67%, 80% and 68% of children aged 0-5 months being exclusively breastfed in urban Sittwe, rural Sittwe and rural Pauktaw respectively. Results indicate that the difference in EBF rates across samples was just under statistical significance (p=0.0514). Again the Sittwe samples for which pre-existing IYCF data was available from the 2012 SMART survey indicate an improvement in figures. Last year, SU had a 13% EBF rate and rural Sittwe a 6% rate. For Pauktaw, the RNA conducted by SCI in December 2012 indicated an EBF rate of 34% amongst the IDP population. Although it is interesting to refer to this result, it must be born in mind that the methodology used is different to this KAP survey, and that therefore caution must be used when comparing results. RNAs are designed to give instant information, and therefore don't use representative samples of the population in question.

#### 3.2.1.3 Introduction of fluids

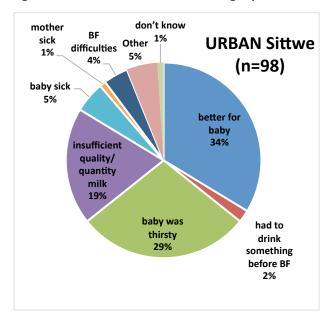
The number of families introducing liquids within the first day of life varied across the samples: 5% in urban Sittwe, 15% rural Sittwe and 31% in rural Pauktaw. The first liquids given were however comparable, starting with plain water (56% urban Sittwe, 54% rural Sittwe, 58% rural Pauktaw), sugary water (5% urban Sittwe, 27% rural Sittwe, 41% rural Pauktaw), animal milk (5% urban Sittwe, 4% rural Sittwe, 4% rural Pauktaw) and infant formula (7% urban Sittwe, 4% rural Sittwe, 3% rural Pauktaw).

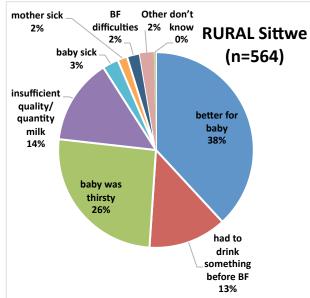
The main reasons for introducing liquids within the first day of life can be found in figure 1. Across Sittwe camps, the principal triggers were that it was considered better for the baby (34% urban Sittwe, 38% rural Sittwe), or that the baby was thirsty (29% urban Sittwe, 26% rural Sittwe). This was followed by the opinion that breastmilk was inadequate (19% SU, 14% rural Sittwe). Interestingly in Pauktaw, the main reason cited by caretakers was that their breastmilk was inadequate (28%), followed by the idea that the baby was thirsty (27%), or that it was better for the baby (20%). In the rural samples, the belief that something else must be given before breastmilk had a greater impact than in the urban one (13% in both rural samples compared to 2% in urban). Mother or child sickness contributed less than 6% in all samples, with breastfeeding difficulties being mentioned even less at maximum 4%. In rural Pauktaw, the main recurring reason in the 7% declared as 'other' was that the baby cried, accounting for 31% of this category. In the other samples, the answers in the 'other' category were more diverse.

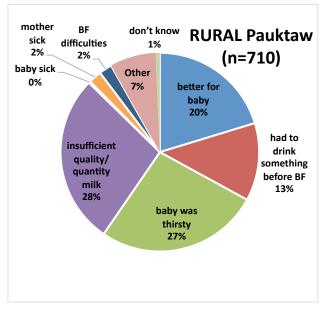
The main age at which liquids were introduced was after 6 months, although this rate was higher in the urban sample compared to the rural ones, with urban Sittwe at 47%, rural Sittwe at 37% and rural Pauktaw at 36% for this age range.

The main decision-maker on the subject is the mother (65% urban Sittwe, 60% rural Sittwe, 72% rural Pauktaw) followed by the mother or mother in-law (16% urban Sittwe, 26% rural Sittwe, 16% rural Pauktaw). As above, nurse and medical persons had a greater influence in the urban sample (16% urban Sittwe, 3% rural Sittwe, 1% rural Pauktaw), whilst TBAs were progressively more of a reference the further away from regular healthcare access one gets (1% urban Sittwe, 6% rural Sittwe, 10% rural Pauktaw). Again, husbands were only marginally involved (2% rural Sittwe, 1% rural Pauktaw). In rural Sittwe, the majority of the 3% 'other' category were BFCou/ SCI program activity staff. This pattern was not observed in the other samples.

Figure 1: Reasons behind introducing liquids within the first day of life







#### 3.2.1.4 Continued breastfeeding

The survey findings show a very good rate of continued breastfeeding at one year with 100% of the children still being breastfed at 12-15 months in urban Sittwe and 96% in rural Sittwe, which is above the project's endline targets for both samples. In Pauktaw the result of 81% is just under the aim of 85% by program end.

When looking at continued breastfeeding at 20-23 months (WHO indicator), this rate drops in both rural samples (from 96 to 80% in rural Sittwe and 81 to 76% in rural Pauktaw), indicating the need for more sensitization on the matter to ensure breastfeeding is extended until children reach at least 24 months. There was a significant difference between samples for this indicator at 12-15 months (p=0.0001), but not at 20-23 months (p=0.0533).

Table 6: Continued breastfeeding rate among children aged 12-15 months

		Yes		No	
	N	n	%	n	%
URBAN Sittwe	20	20	100%	0	0%
RURAL Sittwe	126	121	96%	5	4%

<b>RUKAL Pauktaw</b> 1// 144 81% 33 19%	RURAL Pauktaw	177	144	81%	33	19%	
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Compared to the 2012 SMART survey results, the continued breastfeeding rates in Sittwe rated more favourably this year, as these had been reported as 36% and 37% respectively in urban and rural camps in 2012.

Table 7: Continued Breastfeeding rate among children aged 20-23 months

		Yes		No	
	N	n	%	n	%
<b>URBAN Sittwe</b>	20	20	100%	0	0%
<b>RURAL Sittwe</b>	59	47	80%	12	20%
<b>RURAL Pauktaw</b>	97	74	76%	23	24%

#### 3.2.1.5 Bottle feeding

The bottle feeding rate for children aged 0-23 months is better than the program targets for the Sittwe samples, but much higher than expected at 21% instead of 5% in Pauktaw. Bottle feeding can pose a serious risk to health for infants, especially in camp environments where access to water and clean sanitation is not always guaranteed.

Table 8: Bottle feeding rate among children aged 0-23 months

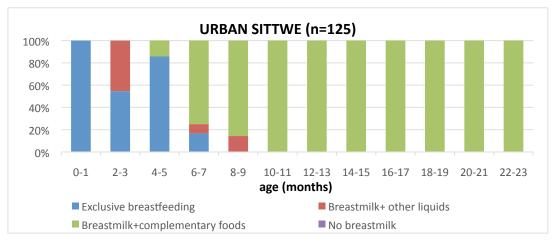
		Yes		No	
	N	n	%	n	%
<b>URBAN Sittwe</b>	126	12	10%	114	90%
<b>RURAL Sittwe</b>	739	41	6%	698	94%
<b>RURAL Pauktaw</b>	772	165	21%	607	79%

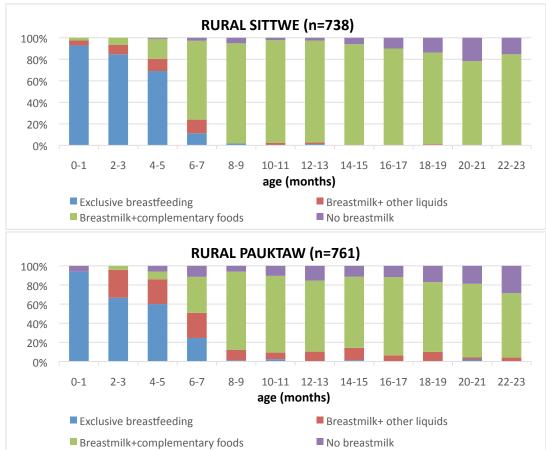
#### 3.2.2 Complementary feeding

An overview of the diet of the surveyed children in the last 24 hours (see figure 2 below) presents trends in feeding practices. The large majority of children are exclusively breastfed at birth, liquids are introduced at around 2-3 months of age, followed by complementary food as of 4-5 months of age.

The patterns vary slightly between samples. In urban Sittwe, 100% of infants are receiving the desired combination of breastmilk and complementary feeding until 23 months. In rural Sittwe however, there are children not receiving breastmilk from 6-7 months. Although in absolute terms, the number of children in question were a handful in this sample (41 in total out of the 738, or 6%), it nevertheless points to a negative trend worth monitoring. In rural Pauktaw, the same pattern is observed as of 4-5 months, affecting a total of 13% of children in the sample. In addition, a further 12% of infants up to 23 months are receiving only a liquid-based diet. This is likely to be having an impact on their nutritional status. More details on complementary feeding can be found below.

Figure 2: 24-hour recall diet summary of children aged 0 - 23 months





#### 3.2.2.1 Timely complementary feeding and introduction of solid, semi-solid or soft food

In Sittwe, complementary food is introduced between 6 and 9 months for 79% of the children in urban camps and 82% in rural camps. These rates are higher than those observed in last year's SMART survey, which were reported at 21% in SU and 13% in SR.

In Pauktaw, the rate falls at 63%. There is a significant difference between samples (p=0.0017). Although all of these indicators fall above program targets, the Pauktaw result remains concerning, as it means that 37% of children are delayed in receiving the complementary foods necessary for an adequate nutritional status.

Table 9: Timely complementary feeding rate among children aged 6-9 months

	Yes		No	
N	n	%	n	%

<b>URBAN Sittwe</b>	19	15	79%	4	21%	
<b>RURAL Sittwe</b>	129	106	82%	23	18%	
RURAL Pauktaw	144	91	63%	53	37%	

The proportion of children aged 6-8 months receiving solid, semi-solid or soft food in the past 24 hours demonstrated a similar trend as the timely complementary feeding indicator, with 76% for urban Sittwe, 81% for rural Sittwe but only 61% for rural Pauktaw. Again, there was a significant difference between samples (p=0.0017). The results are over the targets for the project endline in the Sittwe samples, but under that in Pauktaw (although close).

Table 10: Introduction of solid, semi-sold, soft foods among children aged 6-8 months

		Yes		No	
	N	n	%	n	%
<b>URBAN Sittwe</b>	17	13	76%	4	24%
<b>RURAL Sittwe</b>	104	84	81%	20	19%
RURAL Pauktaw	106	65	61%	41	39%

#### 3.2.2.2 Minimum dietary diversity, meal frequency and acceptable diet

The results below highlight that only 65% and 62% of children aged 6-23 months in urban Sittwe and rural Sittwe respectively received a sufficiently diverse diet to cover their nutritional needs. In Pauktaw this fell below half at 46%. The difference between samples is significant (p=0.0000). Although these results fall above program targets in the rural samples, this is solely because the targets had been set low, in light of the reliance on food rations and the lack of access to markets and other food sources for a large part of these populations.

Table 11: Minimum dietary diversity rate among children aged 6-23 months

		Yes		No	
	N	n	%	n	%
<b>URBAN Sittwe</b>	105	68	65%	37	35%
<b>RURAL Sittwe</b>	495	306	62%	189	38%
<b>RURAL Pauktaw</b>	682	314	46%	368	54%

The minimum meal frequency for children aged 6-23 months was reached by 76% of children in urban Sittwe and 80% in rural Sittwe. As for the previous indicator, children in rural Pauktaw appear worse off, with only 60% getting sufficient meals per day, and a statistically significant difference between samples (p=0.0000). As above, in rural Pauktaw this target needs revising, as it had purposefully been aimed low in light of frequent access issues and reliance on food rations.

Table 12: Minimum meal frequency rate among children 6-23 months

		Yes		No	
	N	n	%	n	%
<b>URBAN Sittwe</b>	105	80	76%	25	24%
<b>RURAL Sittwe</b>	495	394	80%	101	20%
<b>RURAL Pauktaw</b>	682	410	60%	272	40%

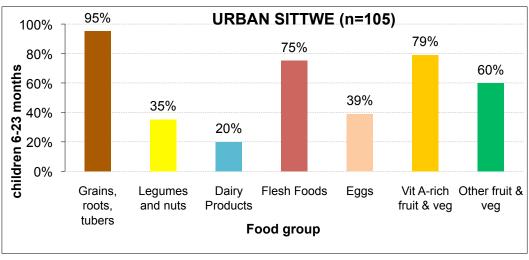
As a composite indicator of dietary diversity and meal frequency, only 56% of children aged 6-23 months in urban Sittwe, 54% in rural Sittwe and 41% in rural Pauktaw had a minimum acceptable diet. As above, the statistically significant difference between samples remains true (p=0.0000). Targets in both rural samples need revising for the same reasons as mentioned above.

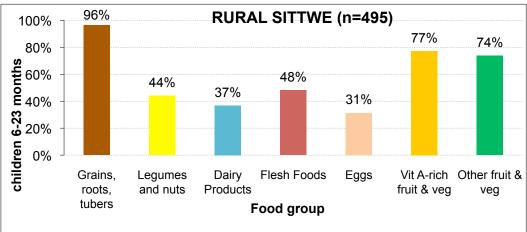
Table 13: Minimum acceptable diet among children 6-23 months

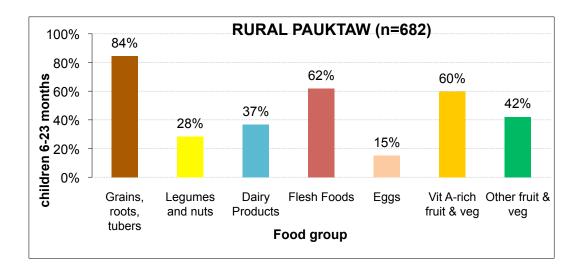
		Yes		No	
	N	n	%	n	%
<b>URBAN Sittwe</b>	105	59	56%	46	44%
<b>RURAL Sittwe</b>	495	269	54%	226	46%
RURAL Pauktaw	682	281	41%	401	59%

In order to describe in more detail the complementary feeding received by the 6-23 month old children in each sample, the figures below summarise the types of foods eaten by food group. In all three samples, the majority of children consumed items from the 'grains, roots, tubers' group. This can be explained by the facts that rice is a local staple, as well as that particularly the rural camp populations continue to rely on rice-based food rations as their main dietary intake. In all three samples the three next most commonly consumed food groups were the 'vitamin A-rich fruit and vegetables', other 'fruit and vegetables' and 'flesh foods'. However, they came in slightly different order, with flesh foods being the second most common food group in Pauktaw by a small percentage, whilst it came third in urban Sittwe and a more distant fourth in rural Sittwe. The children in urban Sittwe were the biggest flesh food consumers comparatively speaking, at 75% compared to 48% in rural Sittwe and 62% in rural Pauktaw. In rural Sittwe, more fruit, vegetables and dairy products were consumed than in urban Sittwe. In rural Pauktaw, less legumes, nuts and non vitamin-A rich fruit and vegetables were consumed than in the other samples, although dairy intake was comparable to that of rural Sittwe. These trends may be due to traditional diets, but likely also due to varying access to markets and produce across camps.

Figure 3: Food consumption per food group of children aged 6-23 months

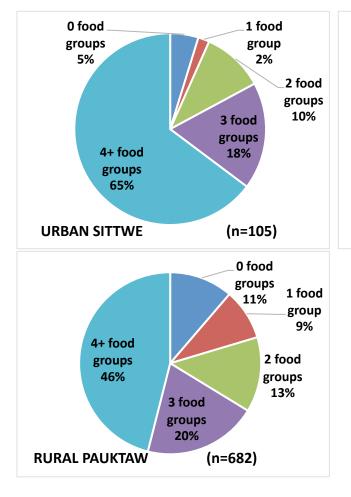


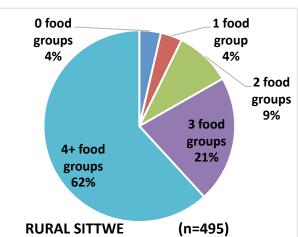




With regards to the adequacy of the number of food groups eaten to prevent micronutrient deficiency and chronic malnutrition, 65% of urban Sittwe's 6-23 month old children reach the necessary four. In urban Sittwe we find a comparable 62%, but again in rural Pauktaw, the result is lower at 46%. Furthermore, a worrying 11% of these children ate from no food group whatsoever, reiterating the above concern on prolonged reliance on liquid diets.

Figure 4: Number of food groups consumed by children aged 6-23 months





#### 3.2.2.3 Consumption of iron-rich fortified food

There was no significant difference between samples for the consumption of iron-rich foods by children aged 6-23 months from the 24-hour dietary recall. Levels are at at 81% in urban Sittwe, and 78% in both rural samples. Fish seemed to be a main source; in urban Sittwe, 48% of children had consumed fish in the past 24 hours, 25% in rural Sittwe and 37% in rural Pauktaw. Fortified foods had been consumed by 40% and 37% of children respectively in rural Sittwe and rural Pauktaw. In urban Sittwe this was at 17%. In rural Pauktaw, 19% of children had also consumed organ meat.

This consumption rate falls above the target in Sittwe urban, as it had been set at a lower level than for the rural samples, to take into account the fact that the selling of fortified rations is reported as more common, and the price of flesh foods has been reported as higher. For the two rural samples, this result falls slightly below the expected 80% and the target 85%.

Table 14: Iron-rich fortified food consumption rate among children aged 6-23 months

		Yes		No	
	N	n	%	n	%
<b>URBAN Sittwe</b>	105	85	81%	20	19%
<b>RURAL Sittwe</b>	495	388	78%	107	22%
<b>RURAL Pauktaw</b>	682	533	78%	149	22%

#### 3.3 Nutrition Programme Perception

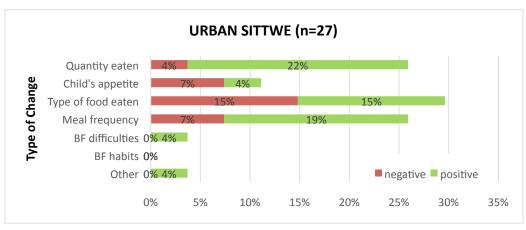
#### 3.3.1 Impact of the conflict on IYCF practices

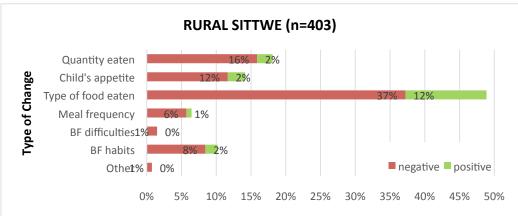
The impact of the conflict on infant feeding is felt to varying degrees in each sample: in urban Sittwe, only 14% (n=17) of caretakers report seeing a change in their child's intake, whilst in rural Sittwe it is 40% (n=245) and in rural Pauktaw it is 35% (n=255).

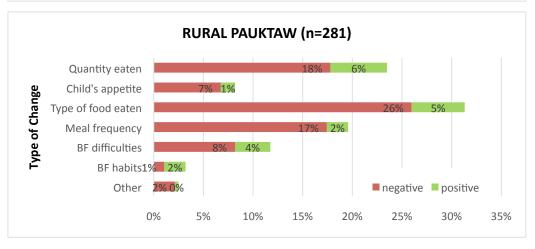
Of those who notice a change in urban Sittwe, 35% say they can no longer afford to buy the food the baby needs, 24% say the foods are not available, and 41% reported a mix of 'other' reasons, including that the child had more appetite. In rural Sittwe, 21% of caretakers say they have no problem finding the required foods, whilst 62% say they can't afford them, and 15% quote food unavailability as the issue. For rural Pauktaw, 10% of caretakers indicate no problems acquiring appropriate food, 55% say they can't afford them, and 31% quote the problem of availability.

In response to the question of whether the caretaker feels that her infant feeding practices have changed, 22% (n=27) of responders in urban Sittwe, 63% (n=401) in rural Sittwe and 38% (n=283) in rural Pauktaw say yes. When asked whether this change is positive or negative, 61% in urban Sittwe feel it was positive, versus only 19% in rural Sittwe and 21% in rural Pauktaw. In the figures below, the types of changes are summarised in terms of the percentage of caretakers who rate them as positive or negative. As a snapshot, for those finding the change positive, the main quoted reasons are the increased quantity of food being eaten (22% in urban Sittwe and 6% in rural Pauktaw) and the diversity of food (12% in rural Sittwe). Those describing the change as negative quote the type of food eaten as the main cause (15% in urban Sittwe, 37% in rural Sittwe, and 26% in rural Pauktaw). In summary, the conflict has impacted different people differently.

Figure 5 : Caretaker views on conflict-induced changes in IYCF practices





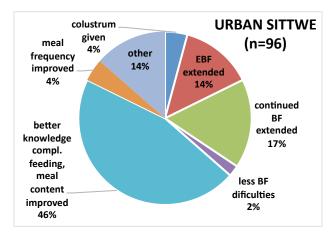


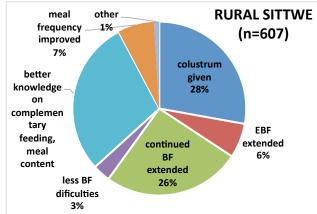
## 3.3.2 Impact of nutrition education sessions

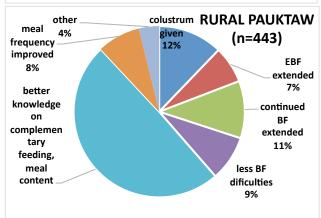
59% (n=73) of caretakers in urban Sittwe, 82% (n=603) in rural Sittwe and 45% (n=347) report participating in SCI's nutrition education sessions.

Of those having attended, 51% in urban Sittwe, 87% in rural Sittwe and 61% in rural Pauktaw report having made changes to the way they feed their infant. The figures below provide detail on the types of changes that have occurred as a result of SCI's intervention. On the whole, the improvement in knowledge on complementary feeding with subsequent improved meal content is quoted as the main change across all samples (46% in urban Sittwe, 29% in rural Sittwe, 49% in rural Pauktaw). In rural Sittwe, similar-sized improvements are found for giving colostrum (28%) and extending continued breastfeeding (26%).

Figure 6: Reported nutrition education session impact on IYCF practices





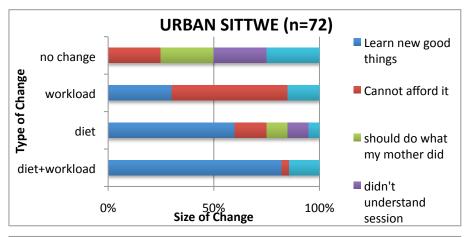


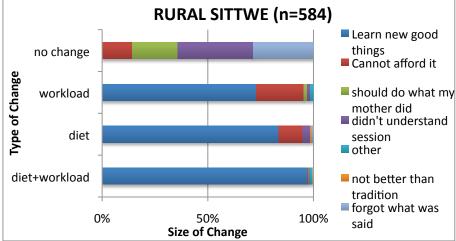
A further 94% of caretakers in urban Sittwe, 98% in rural Sittwe and 90% in rural Pauktaw report having made changes to their diet, workload or both as a result of attending an education session. Across all samples, the most common change is to both diet and workload (39% in urban Sittwe, 51% in rural Sittwe, 52% in rural Pauktaw).

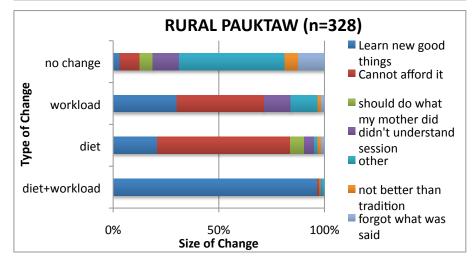
Reasons behind these changes are detailed below. Across all samples, the acquisition of new knowledge is quoted as a major contributor to change; it is used to explain the change in diet and workload by 82% of respondents in urban Sittwe, 97% in rural Sittwe and 96% in rural Pauktaw. Not being able to afford making the learned changes is a significant factor to consider; in rural Pauktaw for instance, this is recorded as impacting dietary change by 63%.

For those who haven't made any changes, the reasons varied across samples. In urban Sittwe, it's an equal split of 25% each between not being able to afford it, feeling that one should continue with tradition, not having understood the session, and a number of 'other' reasons. In rural Sittwe, 36% was attributed to not understanding the session, and 29% to not remembering its content.

Figure 7: Reported nutrition education session impact on mothers' diet and workload





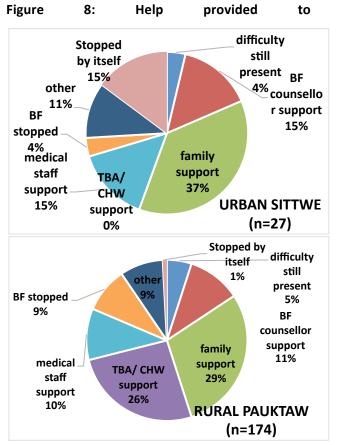


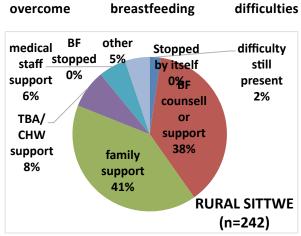
## 3.3.3 Support for breastfeeding difficulties

Breastfeeding difficulties are reported by 21% (n=27) of caretakers in urban Sittwe, 24% (n=176) in rural Sittwe and 32% (n=244) in rural Pauktaw. The figures below highlight how these problems were overcome, and how they vary across samples.

In urban Sittwe, 37% of problems were resolved via family support. In rural Sittwe, 41% of issues were treated successfully by the family, followed closely at 38% by breastfeeding counsellors. In rural Pauktaw, family support was again the main solution for 29% of problems, this time being followed by TBAs (26%). Interestingly in both SU and rural Pauktaw, equal amounts of support were received from medical staff as from breastfeeding counsellors (15% in SU, around 11% in rural Pauktaw). It is worth noting for

programmatic purposes that the stopping of breastfeeding occurred in 4% of cases in urban Sittwe and 9% in rural Pauktaw, as a result of the difficulty.





#### 3.3.4 Caretaker knowledge of IYCF principles

Whilst change is not automatic once knowledge is acquired, it nevertheless forms an important part of IYCF programming. In order to ensure that this foundation exists before implementing further behaviour change activities, caretakers' knowledge of the four core IYCF practices was assessed.

The project target for all samples is 80%. Caretaker knowledge varied according to IYCF principle as well as sample, as the figure below highlights. On the whole, knowledge was highest in rural Sittwe (n=739), with 83% of responders knowing at least 3 principles, compared to 65% in urban Sittwe (n=126) and only 36% in rural Pauktaw (n=772). Although the complementary feeding indicator was the least well-known across all samples, the drop in rural Pauktaw was much more marked, at 46% compared to the next lowest knowledge of 70% of the exclusive breastfeeding indicator.

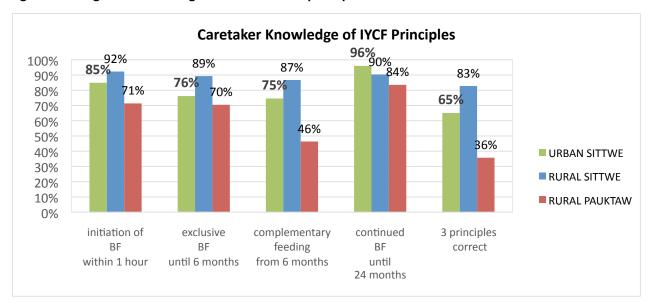


Figure 9: Caregivers' knowledge on the four IYCF principles

#### 3.4 Antenatal care

This survey included a section to assess maternal behaviour during pregnancy as a child's critical 'first 1000 days' of life include the pregnancy time period. Furthermore, SCI's IYCF programming is complemented by an ANC component, in recognition of the importance of this time period and to address gaps in ANC services.

#### 3.4.1 ANC visits

Two types of pregnancy follow-up visits were recognised in this survey. The definition of an 'ANC visit' was once conducted by a doctor/ nurse/ midwife/ auxiliary midwife, and included any or several of the following services: micronutrient supplementation, vaccination, health education, child positioning, blood tests for disease check, blood pressure monitoring, delivery kit distribution. A 'TBA check-up' was conducted by a TBA, and included any or several of the following: child positioning, traditional health education, relaxation, back massage /foot massage. Visits that were only for a pregnancy test or for the government's Special Supplemental Nutrition Program for Women, Infants, and Children were not included.

Using these definitions, the following results were observed: 4% of caretakers in urban Sittwe and rural Sittwe received no pregnancy follow-up visit at all, compared with 24% in rural Pauktaw. No respondent in urban Sittwe opted to have a TBA check-up over an ANC visit. In rural Sittwe however, 55% of responders had had a TBA-check up as opposed to an ANC visit, and in rural Pauktaw this rate stood at 34%. As highlighted in the table below, in urban Sittwe the majority of women had been treated by trained healthcare staff. In rural Sittwe, a third of women had seen a doctor, but two thirds reported a TBA as the most frequent service provider. In rural Pauktaw, 10% of women had seen a doctor and 82% a TBA.

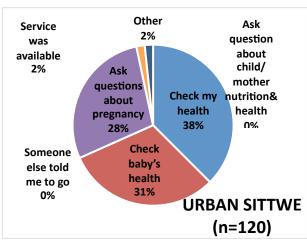
Table 15. Person conducting pregnancy follow-up visit

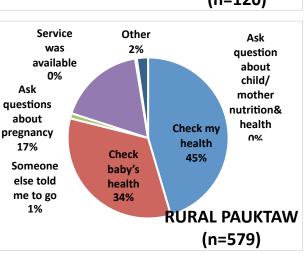
Туре	URBAN SITTWE		RURAL S	RURAL SITTWE		PAUKTAW
	n	%	n	%	n	%
Doctor	58	49%	218	31%	54	9%
Nurse	53	45%	29	4%	16	3%
Midwife/ auxiliary midwife	7	6%	37	5%	33	6%
Traditional Birth Attendant	1	1%	422	60%	479	82%
Total responses	119		706		582	

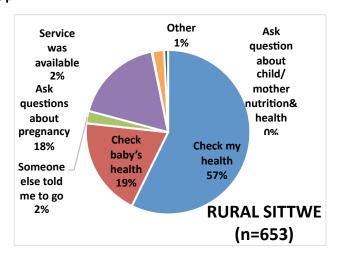
In terms of the timings of the first pregnancy follow-up visit, in urban Sittwe this was most likely to be in the second trimester (50%). For rural Sittwe and rural Pauktaw, the first and second trimesters were quoted with similar frequency at 18/19% each. In addition, 81% of urban Sittwe caretakers and 55% of those in rural Pauktaw had attended at least three pregnancy check-up visits, whilst in rural Pauktaw the majority (53%) had attended only two sessions.

The figures below highlight the motivating factors behind seeking a check-up visit. Across all samples, the main reasons cited were to check either the mother's or baby's health, although in rural Sittwe the tendency to focus on the former was more pronounced than in the other two samples.

Figure 10: Reasons for attending a pregnancy check-up







There were fewer caretakers who hadn't attended a check-up. The number of responses which explained the reasons for choosing not to seek support during pregnancy was therefore quite small. The results indicated that in urban Sittwe, 80% (n=4) said that they felt well, and therefore didn't need to see someone. In rural Sittwe, 25% (n=7) mentioned that it was too far to go, 21% said that they had no money to go, and another 21% said they felt well so there was no need. For rural Pauktaw, 46% (n=83) said there was no need, and 20% mentioned financial constraints.

#### 3.4.2 Supplementation during pregnancy

When questioned regarding the different forms of supplementation during pregnancy, the rates varied across samples (see below table). On the whole, supplementation other than food rations was highest in urban Sittwe, although the level of supplementation there depended on the type of tablet (ranging from 44-82%). In rural Sittwe, medicine supplementation was received by just under half of caretakers in general, whilst the extra food ration was received by 79% (as opposed to 29% in urban Sittwe). rural Pauktaw suffered most from lack of medicine supplementation, with only 16-25% of caretakers being served. 43% received their extra blended food ration.

With regards to the blended food ration designated to each pregnant woman in order to meet increased needs, 70% of women in urban Sittwe who had received the ration said they'd eaten all of it, whilst 19% said they'd eaten part of it. Similarly in rural Pauktaw, 67% of women had eaten it all, and 29% had shared it. In rural Sittwe however, only 41% of caretakers said they'd eaten it all, whilst 58% said they'd shared it.

Table 16. Person conducting pregnancy follow-up visit

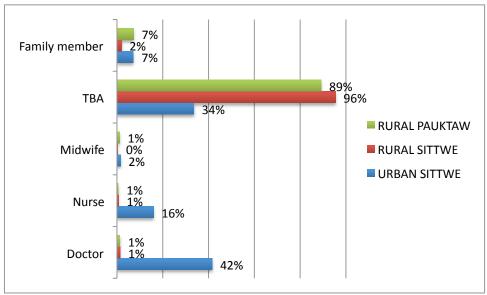
Туре	URBAN SITTWE		RURAL SITTWE		RURAL PAUKTAW	
	n	%	n	%	n	%
Mineral & Vitamin tablets	100	82%	387	53%	161	21%
Vitamin A	54	44%	350	48%	180	24%
Iron	106	87%	308	42%	192	25%
Vitamin B1	79	65%	340	47%	157	21%
Deworming tablet	84	67%	348	47%	124	16%
Extra ration of blended food	36	29%	584	79%	327	43%

### 3.4.2 Delivery assistance

For the most part, deliveries take place for the most part in the home in the rural samples, with 98% in rural Sittwe and 97% in rural Pauktaw. In urban Sittwe, 50% of caretakers had chosen this option, whilst the other half preferred the hospital. In both rural samples, 2% of responders had delivered in a hospital, and in rural Pauktaw 1% in a birth centre.

When it came to who was present to assist in delivery, the responses varied by sample also. In urban Sittwe, doctors and nurses helped in a total of 58% of deliveries, but had little contribution in the rural samples. Midwives did not appear to be involved in many deliveries anywhere, which may be due to the fact that there are not many midwives in the area. Family members assisted in 7% of cases in both urban Sittwe and rural Pauktaw but not significantly in rural Sittwe. Finally, the importance of engaging TBAs in programming is reiterated by the fact that they assisted in 96% of deliveries in rural Sittwe and 89% of deliveries in rural Pauktaw. Although the majority of women in urban Sittwe had not visited TBAs for antenatal support, 34% still had a TBA help to give birth (presumably those giving birth in the home).

Figure 11: Delivery assistance



\*n=125 for urban Sittwe, n=736 for rural Sittwe, n=772 for rural Pauktaw

With regards to choosing the same delivery space for future pregnancies, 78% (n=94) in urban Sittwe, 80% (n=446) in rural Sittwe and 85% (n=605) in rural Pauktaw said yes they would deliver in the same space. As highlighted in the table below, the main reason for this was satisfaction with the assistance and place for Sittwe caretakers (43% in urban Sittwe and 45% in rural Sittwe), whilst in rural Pauktaw, 53% quoted the assistance as primary factor. However, for those in urban Sittwe who had delivered at home and reported that they would choose this again 29% also reported that if the delivery was difficult, they would go to hospital.

For the minority who preferred to opt for a different delivery space, 68% of rural Sittwe caretakers reported that this was due to dissatisfaction with the combination of assistance and space. In the other two samples, 'other' factors made up the majority of the response at around 50%. In rural Sittwe, this category included either the cost of delivering in a hospital (38%) for those who wanted to stay at home next time, or difficulties in labor requiring hospitalization (31%) for those who had had previous homebirths. In rural Pauktaw, 67% of responses in the 'other' category which stipulated wanting to have a hospital birth had no further information as to the reason, whilst 17% indicated the lack of husband or family as trigger. In light of the importance of appropriately assisted delivery to reduce maternal mortality, as well as ANC generally, a more in-depth investigation into the factors contributing to decision-making for these behaviours would be useful.

Table 17. Reasons for selecting a delivery space in future

Sample	Reason	Different delivery space		Same delivery space	
		n	%	n	%
URBAN SITTWE	The assistance	3	12%	22	23%
	The place	2	8%	13	14%
	Both assistance	e 6	23%	40	43%
	No other choice	2	8%	1	1%
	Other	13	50%	18	19%
RURAL SITTWE	The assistance	7	6%	111	25%
	The place	13	12%	24	5%
	Both assistance	e 74	68%	200	45%
	No other choice	2	2%	96	22%
	Other	13	12%	14	3%
RURAL PAUKTAW	The assistance	2	4%	314	53%
	The place	9	19%	24	4%
	Both assistance	e 5	10%	159	27%
	No other choice	7	15%	79	13%
	Other	25	52%	11	2%

#### 4. Discussion and Conclusion

#### 4.1 Infant and young child feeding

In terms of breastfeeding behaviours, each sample demonstrated different patterns. Regarding timely initiation of breastfeeding and exclusive breastfeeding, rural Sittwe had the most positive results at around 80%, followed by urban Sittwe at 60%. In rural Pauktaw, timely initiation was a real issue at 38%, but once initiated, exclusive breastfeeding rates were comparable to those in urban Sittwe (68%). Continued breastfeeding rates at one year were better in all samples than timely initiation of breastfeeding, with urban Sittwe at 100%, rural Sittwe at 96% and rural Pauktaw at 81%. Bottle feeding occurs in all samples, but is of particular concern in rural Pauktaw at 21% (in urban Sittwe it occurs in 10% and in rural Sittwe in 6% of cases).

Complementary feeding practices results again highlighted a variety of trends across the samples. Timely complementary feeding was strongest in rural Sittwe at 82%, with a comparable 79% of infants in urban Sittwe, but a lower 63% in rural Pauktaw. The introduction of appropriately textured food displayed a similar trend, with rates of 81%, 76% and 61% respectively across rural Sittwe, urban Sittwe and rural Pauktaw samples. Minimum dietary diversity rates were comparable in the Sittwe samples (65% in urban Sittwe, 62% in rural Sittwe). In rural Pauktaw, under half of children received sufficiently diverse diets (46%). In addition, it was in this sample that children of 23 months were found to still be living on a solely liquid diet. Minimum meal frequency rates displayed the same pattern at 76% in urban Sittwe, 80% in rural Sittwe and only 60% in rural Pauktaw. As a result, the minimum acceptable diet rate trend was at 56% in urban Sittwe, 54% in rural Sittwe and 41% in rural Pauktaw. Iron-rich food consumption appeared to be less of a problem across all samples (81% in urban Sittwe, 76% in rural Sittwe, 78% in rural Pauktaw), with meat, fish as well as fortified foods contributing to these levels to varying degrees across the samples.

In summary, the above paragraphs highlight general trends, such as the fact that minimum acceptable diets were an issue across all samples, whilst continued breastfeeding rates appeared to be less of a problem. At the same time, the differences between samples in terms of the types of inadequate IYCF practices are also evident. On the whole, Pauktaw's results for the ten core IYCF indicators were poorer than those in Sittwe. A variety of reasons may contribute to these differences, ranging from access to healthcare and diversified food sources, limited knowledge, traditional beliefs and lifestyles. It is important to respond to each target population in a way that is most relevant. For instance, beliefs around colostrum being bad for the baby were not of significance in urban Sittwe, whilst in the rural samples it was frequently cited. Caretakers in an urban setting may struggle to provide a sufficiently diversified infant diet for different reasons than those in rural camps. Furthermore, Sittwe camps have benefited from IYCF programming since October 2012, whilst activities in Pauktaw only started in August 2013.

Decision-makers in IYCF behaviours were similarly varied, with urban Sittwe mothers relying more on healthcare staff and caretakers in rural samples on TBAs. Nevertheless, the key decision-maker was the mother in all strata. Family was also influential in all samples, although more the mother/ mother-in-law than the husband. rural Sittwe was the only sample where BFCou and nutrition volunteers were mentioned in several responses. It is important to target the appropriate people to cultivate behaviour change, but also to distinguish their differing needs across the settings. For instance, TBAs were much more influential in rural Pauktaw, but where they were also associated with less adequate decisions they were much worse at initiating timely breastfeeding than their colleagues in rural Sittwe.

One final point to raise on IYCF indicators is the fact that just over half of the program target rates have already been reached, as estimated baseline prevalence rates were lower than those found in reality. The estimated prevalence rates were based on discussions with field teams, as well as previous survey results. In many examples, the 2012 SMART survey results indicated lower prevalence rates than found this year. This could in part be due to contextual factors, such as a more stable camp set-up (the 2012 SMART survey was carried out just after the October population movements) with potentially improved access to healthcare and food rations. It could also be that exposure to IYCF programming has raised awareness.

Nevertheless, it could also highlight the need for a deeper understanding of IYCF behaviour in the target populations by program staff, to ensure this feeds into updated targets and behaviour change activities that are relevant to each setting.

#### **4.2 Nutrition Programme Perception**

The crisis has impacted different people in different ways, and to different extents; fewer caretakers reported a conflict-induced change in infant feeding in urban Sittwe than in the rural samples (14% compared to 35-40%). Furthermore, although in urban Sittwe, fewer women reported having changed their IYCF behaviour than in the rural samples, the majority felt these changes to have been positive (61%). In rural Sittwe and rural Pauktaw, only around 20% of responders felt the change had been positive. The main reasons quoted for an observed positive change were the increased quantity and diversity of food being eaten. The latter point of food type was also the main cause reported by those who experienced the change as negative. This indicates that caretakers are coming to the nutrition program with differing recent experiences, as well as potential/ motivation to change.

Regarding program impact so far, this also varied across samples and across topics although it appeared strongest in rural Sittwe. This may be due to the fact that IYCF programming has existed there longer than in Pauktaw, and that urban programming is often more challenging as caretakers are potentially faced with more demands on their time. The survey highlighted that participation in education sessions ranged from 45% in rural Pauktaw to 81% in rural Sittwe. Resulting improvements in IYCF practices were quoted by 51% caretakers in urban Sittwe, compared to 87% in rural Sittwe. For changes in maternal diet and/or workload, the results were better, with rates above 90% in all samples.

The main reason cited for these changes in all samples was the acquisition of new knowledge. For IYCF feeding, this equated to better meal content, although the scale of the change varied from rural Pauktaw at 49% to the 29% in rural Sittwe. For changes to maternal diet and workload, knowledge was considered the main driver by over 80% of caretakers in all samples.

Barriers to change are important to understand for programming purposes. The main reasons varied across samples: in urban Sittwe, it was an even split between not being able to afford it, feeling that one should continue with tradition, not having understood the session, and a host of 'other' reasons. On the other hand, in rural Sittwe, 36% was down to not understanding the session, and 29% to not remembering its content. In rural Pauktaw for instance, the in-affordability of dietary change was quoted by 63% of responders. These differences may be due to external contextual factors, but also due to the way our programs are implemented across the different settings, and their ability to remain relevant.

In terms of breastfeeding support, the influence of the breastfeeding counsellor in finding solutions varied across samples, from almost 40% in rural Sittwe to under 15% in the other two samples. Whilst again this may be influenced by external factors, it is worth investigating what internal differences exist in programming across these settings to explain these results. Furthermore, breastfeeding problem prevalence ranged from 21-32% across samples. At present, the bulk of the breastfeeding counsellor's work focuses on one-to-one counselling for these caretakers, with less time spent on group behaviour change sessions. In light of the above rates of inadequate IYCF feeding practices, it is worth considering the allocation of staff and volunteer time and activities to ensure maximum impact.

With regards to knowledge of IYCF practices, knowledge of at least 3 core indicators was above the 80% project target in rural Sittwe only. In rural Pauktaw it was only at 36%, and in rural Sittwe at 65%. A potential contributor to this may be the varying degrees of exposure to IYCF programming experienced so far. However, programming in urban Sittwe started at the same time as that in rural Sittwe, but appears to have had less impact on knowledge. These differences highlight not only the importance of adapting program activity to the target population (eg. Focusing on knowledge acquisition before behaviour change activities in those populations where it is lacking), but also of ensuring that information sharing remains effective and practical. It is important also to link this result on knowledge to the information on IYCF practices behaviour described above, to ensure coherent program activity prioritisation and method of delivery.

#### 4.1 Ante-natal/ Post-natal Care

Differences across samples were marked, with rural Pauktaw frequently indicating poorer ANC trends than in Sittwe. This is not surprising in light of the more limited access to healthcare in rural camps, particularly in rural Pauktaw (where MSF's mobile clinic comes once a week only). It is however still worrying that almost a quarter of caretakers in rural Pauktaw responded that they had seen no one during their pregnancy. Although the TBAs in rural Pauktaw were not always associated with appropriate advice giving, the fact that no advice at all was sought is of concern, as ensuring timely referral for high-risk pregnancies is even more crucial when reduced access to healthcare facilities is a factor. Further investigation into why this is the case is relevant. If a big contributor as indicated in this survey's results is the sentiment that no helps need to be sought if the caretaker feels in good health, this requires clear sensitisation. If the constraints are more financial/ logistical, this will require a different programmatic approach.

With regards to those involved in ANC and delivery assistance, the importance of engaging with TBAs is clear from the sheer numbers of pregnancies they are involved in. This does not mean that they should be supported in assisting in deliveries, particularly as this contradicts the current national MOH strategy. It is beneficial empower them in antenatal monitoring, particularly in identification of at-risk delivery signs, for referral to medical actors. Furthermore, they are clearly a respected source of advice, and as such are vital for all behaviour change sensitisation. In areas where medical staff is more frequently visited, it remains important to engage with them also, via collaborating on trainings and providing financial assistance to train further midwives/ auxiliary midwives.

For supplementation during pregnancy, it is clear that this is an issue in rural camps, particularly in Pauktaw, with less than a quarter of women receiving adequate medication. In light of the reliance on food rations and traditional practices observed in programming, it is likely that the maternal diet is lacking in diversity. It is therefore even more important that these women receive top-ups during this important time, for both herself and her baby. Further research into why this is the case is needed to understand how much is down to inadequate access to healthcare and how much is down to behaviour. Furthermore, as indicated in rural Sittwe with less than half of women eating their entire food ration a better understanding of the extent of and impact of economic constraints on caretakers' ability to implement appropriate diet and workload changes.

Finally, in terms of delivery space, the vast majority of women would choose to deliver in the same place again with the same assistance. Although there is no up-to-date data on maternal mortality available for these townships at present, it is a well-known fact that effective assistance and a hygienic environment are essential during delivery. It is known that in the rural camps (particularly Pauktaw), access to appropriate healthcare is likely a large barrier to seeking this sort of assistance. Some women in urban Sittwe also quoted financial constraints. This highlights that even if the hospital is available, it may not be accessible to all. This may not just be for financial reasons, but also as a result of beliefs. Programme statistics indicate that only 4% of women in rural Sittwe who have access to MSF's hospital there choose to use it. Feedback from ANC group sessions highlights a variety of reasons, ranging from fear of being transferred to Sittwe hospital outside the camps, to tradition (if one appears well there is no need to go).

As is clear from program experience, this survey confirms the gaps in adequate safe ANC and delivery care in the target areas. Further investigation is vital to understand who is involved in decision-making around ANC and delivery, and what factors contribute to their decision-making, be they financial, logistical or traditional.

#### 5. Recommendations

#### General

- Update program targets in light of these survey results
- Conduct a further KAP survey in 6-12 months to monitor change
- Continue to include IYCF indicators in ongoing program data collection to ensure routine monitoring and analysis of program activity impact. Ensure program indicators capture outcomes, not just outputs
- Continue to monitor IYCF indicators as part of the nutrition cluster's routine surveillance system, and ensure that the importance of IYCF activities in malnutrition prevention and treatment remain clear to humanitarian actors, government and target communities

#### **IYCF**

- Use these survey results to further analyse the reasons behind each samples' specific IYCF problems, and tailor program activities accordingly. This should include a review of topics covered, how these topics are presented, and what types and frequency of activities are most suited to the target audiences to ensure maximum impact without taking time away from caregivers' childcare activities
- Ensure program staff are aware of the different beliefs and practices in each sample, and tailor their discussion/ support groups to the attitudes present in each target population; organise a review workshop highlighting survey results and ensure quarterly analysis of program impact with implication of all program staff
- Focus program activity on those making decisions (which varies per sample); offer more input to
  mothers/mothers-in-law than husbands, for instance, and work with TBAs in rural camps as well as
  healthcare staff in urban ones. Focus on the specific needs of decision-makers; tailor information
  sharing to target their beliefs and practices
- Review the role of breastfeeding counsellors and program staff to ensure their impact as a port of call and behaviour change facilitator in the target populations is maximised
- Focus on activities to reduce bottle feeding, improve timely complementary feeding and avoidance of liquid diets in rural Pauktaw
- Ensure bottle feeding is monitored and acted upon effectively by all nutrition and health actors via existing nutrition sector surveillance systems
- Focus on activities to improve minimum dietary diversity in all samples. At the same time, advocate for
  the reduction of all practical barriers to increasing dietary diversity, via collaborating with food security
  and livelihoods actors to assess the problems in more detail and identify the possibilities for relevant
  programming

#### **Nutrition program perception**

- Review reasons behind the varying impact in each sample and adapt program activity accordingly via lessons learned
- In nutrition education sessions and all behaviour change activities, ensure the solutions are practical in
  the context; not too expensive, and memorable/ understandable for the target audience. Practical
  activities by participants such as recipe design using food rations, or drama sessions/ competitions on
  specific topics, should be prioritised.
- Capacity-build staff to ensure they are competent in implementing appropriate behaviour change methods in their sessions, using an interactive approach that supports the target audience in

suggesting solutions and setting targets themselves. Ensure sufficient field supervision, on-the-job training and regular review of activities

- Focus on knowledge acquisition particularly in rural Pauktaw whilst ensuring it is practical
- Ensure the main IYCF problems of the target population are selected as session topics, and focus on one change at a time, rather than passing many messages before checking that they have been understood and implemented
- Review the role of breastfeeding counsellors, how they are perceived by the community and what activities they should be used for

#### **ANC/PNC**

- Further investigate the reasons behind not seeking ANC or safe delivery spaces, as well as pregnancy
  beliefs and practices more generally, to enable more targeted program activities. This can happen as a
  capitalisation exercise in the current project, with the summarising of information already available
  through the program and focus groups. Leading active collaboration with other nutrition actors in the
  IYCF sub-sector group can also enhance it. Finally, a further formal assessment into antenatal health
  behaviour could provide direction
- Ensure adequate supplementation is achieved across all samples
- Focus sensitisation according to the specific problems in each sample; for instance highlighting the importance of seeking ANC in rural Pauktaw