

**LQAS MID-TERM EVALUATION REPORT**

**FOR THE**

**Community Based Integrated Management of Childhood  
Illness (CIMCI) and Complementary Projects in Ntungamo  
District Uganda**

**Final Draft Report**

**Compiled by:**

**Felix Wamono,  
Institute of Statistics and Applied Economics,  
Makerere University,  
P.O.Box 7062,  
Kampala, Uganda  
Tel: +256772467206  
Email: fwamono@isae.mak.ac.ug**

**September, 2006**

## TABLE OF CONTENTS

<b>Summary</b> .....	2
<b>CONTROL OF MALARIA</b> .....	2
<b>IMMUNIZATION</b> .....	2
<b>NUTRITION, MICRONUTRIENTS AND BREASTFEEDING</b> .....	2
<b>HIV/AIDS</b> .....	3
<b>CONTROL OF DIARRHOEAL DISEASES</b> .....	3
<b>CATCH INDICATORS</b> .....	3
<b>Program Overview (locations, objectives, main activities, beneficiaries)</b> .....	5
<b>Purpose of Monitoring Survey and Methodology</b> .....	6
<b>Purpose of the Monitoring Survey</b> .....	6
<b>Methodology</b> .....	6
<b>Target Population, Sample Size and Sample Selection Procedure</b> .....	6
<b>Data Collection Instruments</b> .....	7
<b>Recruitment and Training of Field Staff</b> .....	7
<b>Organisation of the Fieldwork</b> .....	8
<b>Tabulation and Analysis</b> .....	8
<b>Background characteristics of the Respondents</b> .....	9
<b>Main Findings (Accomplishments, priorities by Supervision Area and for the Program Area as a whole)</b> .....	10
<b>BREASTFEEDING AND NUTRITION</b> .....	10
<b>DIARRHOEAL DISEASES</b> .....	12
<b>IMMUNIZATION</b> .....	15
<b>GROWTH MONITORING AND ANTHROPOMETRY</b> .....	15
<b>PRENATAL CARE</b> .....	15
<b>MATERNAL AND NEWBORN CARE</b> .....	16
<b>MALARIA/FEVER</b> .....	16
<b>SICK CHILD AND CARE SEEKING</b> .....	20
<b>HIV/AIDS</b> .....	24
<b>CIMCI PLUS INDICATORS</b> .....	26
<b>MALARIA CONTROL</b> .....	26
<b>IMMUNIZATION</b> .....	27
<b>NUTRITION, MICRONUTRIENTS AND BREASTFEEDING</b> .....	27
<b>HIV/AIDS</b> .....	28
<b>CONTROL OF DIARRHOEAL DISEASES</b> .....	28
<b>CATCH INDICATORS</b> .....	29
<b>Action Plans and Goals/ Coverage Targets for Key Indicators</b> .....	30
<b>CIMCI PLUS INDICATORS</b> .....	30
<b>CONTROL OF MALARIA</b> .....	30
<b>IMMUNIZATION</b> .....	30
<b>NUTRITION, MICRONUTRIENTS AND BREASTFEEDING</b> .....	30
<b>HIV/AIDS</b> .....	30
<b>CONTROL OF DIARRHOEAL DISEASES</b> .....	31
<b>CATCH INDICATORS</b> .....	31
<b>Coverage Targets for Key Indicators</b> .....	32
<b>AFRICARE/NTUNGAMO CIMCI-PLUS IMPACT INDICATORS</b> .....	32
<b>CATCH INDICATORS</b> .....	33
<b>Conclusions and Recommendations</b> .....	34
<b>APPENDIX I: RESEARCH TEAM</b> .....	35
<b>APPENDIX II: LQAS TABLES</b> .....	36
<b>APPENDIX III: LQAS DECISION TABLE</b> .....	49
<b>APPENDIX II: MID-TERM EVALUATION QUESTIONNAIRE</b> .....	50

## Summary

The LQAS methodology was used to collect and analyse data on the key project indicators. The indicators were of two categories, namely, CIMCI-Plus indicators and CATCH indicators. The main purpose of conducting the monitoring survey was to:

- Identify the level of coverage of the program area as a whole and find out if:
- There are large differences in coverage regarding health knowledge and practices among Supervision Areas (sub counties)
- There are little differences in coverage regarding health knowledge and practices among Supervision Areas (sub counties)

This would enable the program to identify priorities and refocus the interventions in order to meet program targets, goals and objectives.

The main findings of the study were that:

### CONTROL OF MALARIA

- 9.8% of children aged 0-23 months slept under an insecticide-treated bed net the night prior to the study
- 9.8% of pregnant mothers received IPT during pregnancy at the 4<sup>th</sup> and 7<sup>th</sup> months
- 35.3% of children 6-23 months with fever were given same or more fluids
- 8.8% of children 6-23 months with fever were given same or more solid/mashed foods
- 7.8% of children 0-23 months were taken for millet extraction

### IMMUNIZATION

- 63.0% of children age 12-23 months were fully vaccinated (against the eight vaccine-preventable diseases) before the first birthday
- 64.4% of children age 12-23 months had received a measles vaccine
- 33.8% of mothers of children age 0-23 months had received at least two tetanus toxoid injections before the birth of the youngest child

### NUTRITION, MICRONUTRIENTS AND BREASTFEEDING

- 100% of infants age 0-5 months were exclusively breastfed in the last 24 hours
- 67.7% of children 0-23 months were breastfed within the first 60 minutes of delivery
- 55.6% of mothers of children 0-23 months indicated that children should be exclusively breastfed for six months

## **HIV/AIDS**

- 47.4% of mothers with children 0-23 months cited that HIV/AIDS could be transmitted through pregnancy, delivery and breastfeeding
- 77.4% of mothers of children 0-23 months cited at least two known ways of reducing the risk of HIV/AIDS infection
- 32.3% of mothers with children 0-23 months indicated that they could allow an HIV positive child to play with theirs

## **CONTROL OF DIARRHOEAL DISEASES**

- 58.4% of households with designated hand washing facilities with soap/ash present mentioned the importance of washing hands after defecation to prevent diarrhoea
- 11.4% of children 6-23 months with diarrhoea were given same or more solid or mashed food
- 42.9% of children 0-23 months with diarrhoea were given same or more fluids
- 42.9% of children 0-23 months with diarrhoea were treated with ORS
- 82.7% of mothers with children 0-23 months could identify at least two signs of diarrhoea requiring treatment
- 27.8% of children 0-23 months were taken for false tooth extraction

## **CATCH INDICATORS**

- 27.3% of children age 0-23 months were underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population)
- 46.6% of children age 0-23 months had skilled health personnel at their births
- 33.8% of mothers of children age 0-23 months received at least two tetanus toxoid injections before the birth of their youngest child
- 96.2% of infants age 6-9 months were receiving breast milk and complementary foods
- 63.0% of children age 12-23 months were fully vaccinated (against the five vaccine-preventable diseases) before the first birthday
- 94.0% of mothers knew at least two signs of childhood illness that indicate the need for treatment
- 57.9% of sick children age 0-23 months received increased fluids and continued feeding during an illness in the past two weeks
- 77.4% of mothers of children age 0-23 months cited at least two known ways of reducing the risk of HIV infection
- 1.5% of mothers of children age 0-23 months washed their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated

These findings show that:

- ❑ The program was performing well on most of the immunization and HIV/AIDS indicators
- ❑ The program was not performing very well on the malaria control, control of diarrhoeal diseases, nutrition, and micronutrients indicators

Based on these findings, it is recommended that:

- ❑ The program should focus on the malaria control, control of diarrhoeal diseases, nutrition, and micronutrients indicators in their interventions
- ❑ The program needs to conduct some operations research to identify the cultural practices and norms associated with the practices of millet and false tooth extraction
- ❑ The program also needs to establish why the communities do not give increased fluids and/or solid/mashed food when children are sick with malaria or fever. More sensitisation needs to be conducted in this area
- ❑ A study also needs to be conducted to establish locally grown food items that are rich in various nutrients (vitamins and minerals) that are necessary for child growth and development in order to sensitize the communities about the importance of these products. This will help improve the program's nutrition intervention and reduce the incidence of having underweight children in the program area.

## **Program Overview (locations, objectives, main activities, beneficiaries)**

Africare implemented a four-year (October 1, 1999-September 30, 2003) Community - based Integrated Management of Childhood Illness (CIMCI) project Phase I in Ntungamo District of South Western Uganda. The project operated in eight of the Districts' fifteen sub-counties with a target population of 42,054 children under five and 46,058 women of reproductive age. The overall project goal was to reduce morbidity and mortality of children less than five years. After successfully completing this project, Africare was awarded another grant from USAID/GH/HIDN's Child Survival and Health Grants Program (CSHGP) to support a five-year extension of its CIMCI project – CIMCI-Plus. The project is funded through September 30, 2008. The extended CIMCI Plus program (Phase II) currently covers the other seven sub-counties not included during Phase I (Supervision Areas (SAs)), namely: Nyakera, Itojo, Ruhama, Kayonza, Rugarama, Bwongyera, and Ihunga. The current target population is 39,180 children under five and 42,911 women of reproductive age. The indirect beneficiaries are estimated to be 104,476 people. As in Phase I, the overall project goal for Phase II is to reduce morbidity and mortality of children less than five years through promotion of specific household and community behaviours.

The specific objectives of the program are to:

- Promote knowledge and behaviour related to the prevention of childhood illnesses at household and community levels
- Improve home management of the sick child by promoting timely and appropriate care seeking at household and community levels
- Improve accessibility of under five children and women of reproductive age to quality health services and products, both at facility and community levels
- Strengthen national and district MOH capacity to replicate and sustain the CIMCI approach

In order to achieve these objectives, the program has five key intervention areas, namely:

- Childhood malaria and malaria in pregnant women
- Diarrhoeal diseases control
- HIV/AIDS
- Immunisation, and
- Nutrition, breast feeding and micro-nutrients

The principle strategy used for community mobilization is through community sensitization workshops designed to mobilize the local leadership support, and increase advocacy, ownership and sustainability of the activities once the project ends. The participants are strategically selected; they include district councilors, sub-county local council officials, sub-county chiefs, parish chiefs, local council II chairpersons, religious leaders, school representatives, local CBOs/FBOs, health workers, sub-county extension staff, and opinion leaders.

## **Purpose of Monitoring Survey and Methodology**

### **Purpose of the Monitoring Survey**

The LQAS methodology was used to collect and analyse data on the key project indicators. The indicators were of two categories, namely, CIMCI-Plus indicators and CATCH indicators. The main purpose of conducting the monitoring survey was to:

- Identify the level of coverage of the program area as a whole and find out if:
- There are large differences in coverage regarding health knowledge and practices among Supervision Areas (sub counties)
- There are little differences in coverage regarding health knowledge and practices among Supervision Areas (sub counties)

This would enable the program to identify priorities and refocus the interventions in order to meet program targets, goals and objectives.

### **Methodology**

#### **Target Population, Sample Size and Sample Selection Procedure**

##### **Target Population**

The target population in this study were mothers with children under two years of age.

##### **Sampling Design and Sample Size**

The sampling design used in this study was the LQAS design. A sample of 19 households was selected from each Supervision Area (SA) making a total of 133 households in the seven SAs (sub counties).

##### **Sample Selection Procedure**

The sample selection procedure involved a number of stages. First the Program Area (Catchment Area) was sub-divided into seven Supervision Areas (SAs). The seven SAs were Nyakera, Itojo, Ruhama, Kayonza, Rugarama, Bwongyera, and Ihunga. Secondly using a list of all the parishes in each SA together with the total number of households with children under two years of age within each SA, three parishes were selected from each SA using the cumulative totals method with probability proportional to the total number of households in each SA. The list of all households in each SA with children under two years was constructed by Community Owned Resource Persons (CORPS) prior to the survey. Random numbers generated using MSEXCEL were used to select the first parish in each SA. The parish whose cumulative range corresponded to that random number constituted the first selected parish. The second and third parishes in each SA were obtained by adding the sampling interval to the random start and identifying the corresponding parishes. The sampling interval was obtained by dividing the total number of households in each SA by the sample size of nineteen. A list of villages (communities) of about 30

households each was then constructed from each of the selected parishes. This was done by taking independent villages (if the number of households in the village was about 30), merging neighbouring villages (if the villages were small < 30 households) or splitting the village (if the village was large > 30 households). From the list of villages (communities) of about 30 households each, a random sample of 19 villages was then selected using probability proportional to the number of villages in each of the selected parishes. This constituted the sampled list of villages in each SA. Finally, using a list of households with children under two years in each of the 19 selected villages, a random sample of one household was selected from each of the 19 villages, making a sample of 19 households in each SA. Mothers of children (under 2 years of age), in these selected households were then interviewed. In the event that the mother of the child in the selected household could not be traced even after two call backs, the next household on the sampling list in that particular village would be visited. The whole sample selection exercise was performed in the office and each enumerator was handed a copy of the selected households together with the sampling frame of the households in the selected villages. The list was to enable them substitute some households in case need arose.

### **Data Collection Instruments**

A mothers' questionnaire which was programmed in Perseus Mobile Survey Solutions Software (Professional Edition) on handheld devices (Pocket PCs) was the main instrument for data collection. Weighing scales were also used to measure weights of children less than two years of age. All these instruments were discussed, tested and revised by Africare Ntungamo staff. A total of 133 mothers with children under two years of age were interviewed.

### **Recruitment and Training of Field Staff**

A total of eight enumerators and five supervisors were recruited and trained in the principles and concepts of LQAS. The training covered both theoretical and practical aspects of conducting surveys using the LQAS methodology. The basic principles and concepts covered under LQAS were:

- Basic terminologies used in LQAS (Catchment Area and Supervision Area)
- Purpose of LQAS
- Sample selection using LQAS
- Identifying respondents using LQAS
- Data tabulation and analysis
- Identifying priorities using LQAS

The training lasted two days and was conducted by the Consultant in conjunction with the project staff of Africare Ntungamo. During the training the participants also discussed all the questions in both the English and translated versions (Runyankole/Rukiga Version) of the questionnaire to ensure that they all had a uniform understanding of each question. The training further, covered tips on good interviewing skills. After the training, a pre-test survey involving role playing of the participants was conducted to ensure that all aspects of the questionnaire had been well understood. The participants were also trained on the procedure of accurately measuring weights of children under two years of age, adjusting the weighing scales and recording the measurements. Finally, the enumerators and supervisors were

trained on the practical use of handheld devices (Pocket PCs) and the Mobile Survey Solutions Software Perseus for data collection/entry and editing.

### **Organisation of the Fieldwork**

The fieldwork was conducted by a team of eight enumerators and five supervisors. The five supervisors were all from the Africare Ntungamo Office. For operational purposes, the fieldwork was organised in such a way that two and a half Supervision Areas were covered on each day of the fieldwork. Each enumerator was assigned a total of six households on each day of the fieldwork for a total of 48 households covered on each day of the fieldwork. Each enumerator was also assigned a fully fuelled motorcycle for transportation during the fieldwork.

For purposes of supervision, each set of two enumerators was allocated one supervisor from Africare Ntungamo Office. The team of supervisors was led by the Program Co-ordinator Africare Ntungamo.

At the end of each fieldwork day all the enumerators would return their handheld devices (Pocket PCs) to Africare Ntungamo Head Office to download the data collected to the central database, report any problems with the data entry program, conduct data cleaning, and charge the handheld devices (Pocket PCs) in preparation for the next fieldwork day. The enumerators would also have the opportunity to discuss with the Supervisors and the Consultant any challenges they encountered during the fieldwork and lay strategies for the next fieldwork day.

### **Tabulation and Analysis**

Data entry was performed using Perseus Software for handheld devices (Pocket PCs) while data tabulation and analysis was performed using EPIINFO, SPSS and STATA.

## Background characteristics of the Respondents

A random sample of 19 mothers with children under two years of age were interviewed from each of the seven supervision areas, making a total of 133 respondents. The seven supervision areas were Nyakera, Itojo, Ruhama, Kayonza, Rugarama, Bwongyera, and Ihunga.

About three out of every ten respondents (28.6%, n=38) could neither read nor write in their local language (Runyankole/Rukiga). According to Table 1, the majority of respondents who had attended school only completed P5-P7. Table 1 also shows that the overwhelming majority of respondents (93.3%, n=124) were married.

The major source of income for most of the households (49.6%, n=66) was growing of crops for sale followed by sale of surplus agricultural products (36.1%, n=48). Finally, about four out of every ten respondents (36.8%, n=49) reported doing some work away from home, see Table 1.

**Table 1: Background Characteristics of the Respondents**

Background Characteristic	Number	Percentage
<b>Age Group</b>		
10-19	6	4.5
20-29	75	56.4
30-39	44	33.1
40-49	7	5.6
50+	1	0.8
Overall	133	100
<b>Highest Education Level</b>		
None	38	28.6
P1-P4	23	17.3
P5-P7	57	42.9
S1-S4	13	9.8
Tertiary	2	1.5
Overall	133	100
<b>Marital Status</b>		
Married	124	93.3
Single	5	3.8
Divorced	1	0.8
Separated	2	1.5
Widowed	1	0.8
Overall	133	100
<b>Income Generating Activity</b>		
None	17	12.8
Handicraft, Weaving, rugs, etc	19	13.3
Growing Crops for Sale	66	49.6
Selling Surplus Agricultural Products	48	36.1
Shopkeeper	10	7.5
Street Vendor	1	0.8
Salaried Worker	2	1.5
Looking after Animals	8	6.0
Others	7	5.3
Overall	133	100
<b>Do any work away from home?</b>		
Yes	49	36.8
No	84	63.2
Overall	133	100

## Main Findings (Accomplishments, priorities by Supervision Area and for the Program Area as a whole)

### BREASTFEEDING AND NUTRITION

About seven out of every ten respondents (70.7%, n=94) were breastfeeding at the time of the survey. Amongst those who were not breastfeeding at the time of the survey, 69.2% (n=27) had breastfed in the past.

Mothers were also asked how soon after delivery, they started breastfeeding. Two thirds of them (67.7%, n=90) reported that they started breastfeeding within one hour after delivery, about a third (31.6%, n=42) started breastfeeding within 2-8 hours after delivery, while the rest (0.8%, n=1) started breastfeeding more than 8 hours after delivery. When asked whether, they gave the child anything to eat or drink after the first 2-3 days of birth, about four out of ten mothers (39.9%, n=53) reportedly did so.

Mothers who had stopped breastfeeding at the time of the survey were asked what age the child was when they stopped breastfeeding. Most of whom (65%, n=26) stopped breastfeeding when the child was 13-23 months old, 20 % (n=8) stopped breastfeeding when the child was 7-12 months, 12.5% (n=5) stopped breastfeeding when the child was <6 months. Only 0.8% (n=1) stopped breastfeeding when the child was 24 months and above. These shows that almost all the mothers stopped breastfeeding before the recommended period of 24 months.

Mothers were asked the foods and/or drinks they gave their children the 24 hours prior to the survey. Table 2 below shows the food and/or drink given to children in the 24 hour period.

**Table 2: Foods and/or Drinks provided to Children in a 24 Hour Period Prior to the Survey**

Food and/or Drink Provided	Number <sup>1</sup>	Percentage of 133 respondents
Water	29	21.8
Cow/Animal Milk, Yoghurt	37	27.8
Powdered Milk	61	45.9
Mashed or Soft Foods	66	49.6
Fruit or Juice such as Banana, Lemon Juice, etc	35	26.3
Other Fluids such as Bushera	48	36.1
Carrots, Mangoes or Papaws	15	11.3
Foods made from grains such as millet, sorghum, maize, rice, wheat, other local grains	23	17.3
Leafy green vegetable (e.g. cabbage, dodo)	26	19.6
Meat, Fish	11	8.3
Peas, Beans	37	27.8
Eggs	7	5.3
Honey or Sugar	1	0.8
Fat/Oil	10	7.5
Breast Milk	25	18.8
Others	12	9.2

<sup>1</sup> Some respondents provided more than one response.

Table 2 shows that the major foods provided to the children within a 24 hour period prior to the survey were mashed and/or soft foods (49.6%, n=66), powdered milk (45.9%, n =61), other fluids such as bushera (36.1%, n =48), cow/animal milk (27.8%, n=37), and fruit or juice such as banana or lemon (26.3%, n=35).

Mothers were also asked whether the youngest child was always given food on a separate plate. About eight of every ten respondents (82.5%, n=94) reported that the child was always given food on a separate plate. Amongst those who were not given food on a separate plate, 30% (n=6) shared the plate with other children, 30% (n=6) shared the plate with adults, the rest (40%, n=8) shared the plate with other relatives.

Mothers were further asked about their perceived best way of providing nourishment to their children during the first six months. Table 3 shows the responses provided by mothers on this question.

**Table 3: Perceived Best Ways of Providing Nourishment to Children in the First Six Months**

Perceived best way of Providing Nourishment to children	Number	Percentage of 133 respondents
Does not Know	2	1.5
Breastfeed as soon as possible after delivery	29	21.8
Care of breasts, nipples	9	6.8
Frequent suckling to stimulate production	38	28.6
Exclusive breastfeeding during the first 6 months	74	55.6
Avoid bottle feeding of the breast feeding child	7	5.3
Re-location (if hard to stop, mother can resume breastfeeding)	1	0.8
Others	19	14.3

Table 3 shows that the major perceived best ways of providing nourishment to children in the first six months were exclusive breastfeeding during the first 6 months (55.6%, n=74), frequent suckling to stimulate production (28.6%, n=38) and breastfeeding as soon as possible after delivery (21.8%, n=29).

Mothers were also asked on their knowledge about when they should start giving additional foods to a breastfeeding child. The overwhelming majority of whom (90.2%, n=120) knew that they should start giving additional foods to a breastfeeding child at 6 months. About one out of every twenty mothers (5.3%, n=7) reported that complementary foods should be introduced after 6 months, 3.8% (n=5) reported that complementary foods should be introduced earlier than 6 months. The rest (0.8%, n=1) had no idea about when complementary foods should be introduced.

Mothers were further asked about the additional foods they could give to a breastfeeding child. Table 4 below shows the additional foods reported by the mothers.

**Table 4: Additional Foods that could be provided to Breastfeeding Children**

<b>Additional Foods</b>	<b>Number</b>	<b>Percentage of 133 respondents</b>
Add oil to food	44	33.1
Give food rich in Vitamin	115	86.5
Give food rich in Iron	98	73.7
Do not Know	1	0.8
Others	25	18.8

Table 4 shows that major additional foods that could be given to breastfeeding children as reported by mothers were foods rich in vitamins (86.5%, n=115), foods rich in iron (73.7%, n=98) and adding oil to food (33.1%, n=44).

### **DIARRHOEAL DISEASES**

About a quarter of the respondents (26.3%, n=35) reported that their youngest child under 2 years of age had diarrhoea in last two weeks prior to the survey. Most of whom (56.8%, n=21) sought advice outside the home when the child had diarrhoea.

Among those who administered the diarrhoea treatment from home, Table 5 shows the type of treatment that was administered.

**Table 5: Type of Diarrhoea Treatment Administered from Home**

<b>Type of Treatment</b>	<b>Number</b>	<b>Percentage of 14 respondents</b>
ORS Sachet/Package	2	13.3
Sugar/Salt Solution	1	6.7
Cereal Based ORT	4	26.7
Infusion or other Fluids	1	6.7
Anti-Diarrhoea Medicine or Antibiotics	1	6.7
Others	8	53.3

Among those who sought advice outside the home when the child had diarrhoea, Table 6 shows the place where the mothers first sought treatment.

**Table 6: Place Where Mothers First Sought Treatment When Child was Sick with Diarrhoea**

<b>Place where Treatment was First Sought</b>	<b>Number</b>	<b>Percentage of 21 respondents</b>
Government Hospital	3	14.3
Government Health Facility or Clinic	9	42.9
Private Physician	6	28.6
Pharmacy	1	4.8
Ordinary Shop	2	9.5
Overall	21	100

Table 6 shows that most of the mothers who sought advice outside the home first sought treatment from a government health facility (42.9%, n=9), and 28.6% (n=6) first sought treatment from a private physician.

Among those who first sought diarrhoea treatment from outside the home, Table 7 shows the type of treatment that was administered.

**Table 7: Type of Diarrhoea Treatment Administered from Outside the Home**

Type of Treatment	Number	Percentage of 21 respondents
ORS Sachet/Packet	13	65.0
Anti-Diarrhoea Medicine or Antibiotics	13	65.0
Others	7	30.0

Table 7 shows that most of the mothers who sought advice on diarrhoea treatment for their children, outside the home were given ORS Sachet/Packet (65.0%, n=13). Likewise 65.0 % ( n=13) were given Anti-Diarrhoea Medicine or Antibiotics.

When mothers were asked about their knowledge of preparation of an ORS solution for their children in case they were sick with diarrhoea, only three out of ten mothers (29.6%, n=32) described the correct procedure for preparing the ORS solution.

Mothers were also asked about their knowledge of modes of acquisition and prevention of diarrhoea. Table 8 below shows the reported modes of acquisition and prevention of diarrhoea.

**Table 8: Modes of Acquisition and Prevention of Diarrhoea**

Mode of Acquisition	Number	Percentage of 108 respondents
Drinking unboiled Water	45	41.7
Eating Cold Foods	40	37.0
Eating with dirty/unwashed hands	56	51.9
Lack of latrines/poor faecal disposal	42	38.9
Serving food with dirty/unwashed hands	11	10.2
Eating unwashed fruits	21	19.4
Do not know	11	10.2
Others	22	20.4
<b>Mode of Prevention</b>		
Boiling water for drinking	61	56.5
Washing hands before eating	53	49.1
Washing hands after latrine use	54	50.0
Eating hot food	38	35.2
Washing hands before serving food	20	18.5
Proper faecal disposal	34	31.5
Do not know	7	6.5
Others	9	8.3

Table 8 shows that the main modes of acquiring diarrhoea as reported by mothers are eating with dirty/unwashed hands (51.9%, n=56), drinking unboiled water (41.7%, n=45), lack of latrines/poor faecal disposal (38.9%, n=42) and eating cold foods (37.0%, n=40). While the main modes of preventing diarrhoea were identified to be boiling of water for drinking (56.5%, n=61), washing hands after latrine use (50.0%,

n=54), washing hands before eating (49.1%, n=53) and eating hot food (35.2%, n=38).

Mothers were also asked to identify instances that require washing hands with soap. Table 9 below shows the reported instances that require washing hands with soap.

**Table 9: Instances that require washing hands with soap**

Instance	Number	Percentage of 133 respondents
Before Eating	87	65.4
After Latrine Use	113	85.0
Before Serving Food	58	43.6
When Dirty	67	50.4
Before Feeding Children	59	44.4
After Attending a Child that has Defecated	17	12.8
Never	0	0.0
Others	7	5.3

Table 9 shows that the main reported instances that require washing hands with soap were after latrine use (85.0%, n=113), before eating (65.4%, n=87), when dirty (50.4%, n=67), before feeding children (44.4%, n=59) and before serving food (43.6%, n=58).

The study established that slightly over half of the households (54.1%, n=72) had a hand washing facility with soap/ash present at the latrine.

Mothers were also asked to identify the symptoms that would cause one to seek advice or treatment for a child with diarrhoea. Table 10 below shows the symptoms that would cause one to seek advice or treatment as identified by mothers.

**Table 10: Symptoms that would cause one to seek Advice or Treatment for a child with diarrhoea**

Symptom	Number	Percentage of 133 respondents
Vomiting	25	18.8
Fever	48	36.1
Dry mouth, sunken eyes, decreased urine output	77	57.9
Prolonged Diarrhoea	49	36.8
Blood in Stool	24	18.1
Weakness or tiredness	50	37.6
Not able to drink/drinking poorly	25	18.8
Others	5	3.8

Table 8 shows that major symptoms that would cause mothers to seek advice or treatment for a child with diarrhoea are having a dry mouth, sunken eyes, decreased urine output (57.9%, n=77), weakness or tiredness (37.6%, n=50), prolonged diarrhoea (36.8%, n=49) and fever (36.1%, n=48).

Mothers were also asked whether their youngest child had ever had “false tooth” extraction. Slightly over a quarter of the mothers (27.8%, n=37) reported that their child had received a “false tooth” extraction.

## **IMMUNIZATION**

About three quarters of the mothers (73.7%, n=98) had a vaccination record for their child. Like wise about three quarters of the children (74.4%, n=99) had ever participated in national immunization days.

## **GROWTH MONITORING AND ANTHROPOMETRY**

Over a third of the mothers (37.6%, n=50) reported that their youngest child was weighed at birth.

Two thirds of the children (66.9%, n=89) had a growth monitoring card. The rest either did not have it (30.1%, n=40) or it had been misplaced/not available (3.0%, n=4). The average weight of the children was 8.9kgs but this average could lie anywhere between 8.52kg and 9.28kg with 95% confidence.

## **PRENATAL CARE**

The overwhelming majority of the mothers (97.0%, n=129) reported receiving prenatal care while they were pregnant with their youngest child. Most of whom (96.9%, n=125) saw a Nurse or Midwife during the prenatal visits. The rest (3.1%, n=4) saw a Doctor, Auxiliary Midwife, Traditional Birth Attendant or a Community Health Worker.

The majority of the mothers who had received prenatal care (91.5%, n=118) had more than two prenatal visits, 6.2% (n=8) had two visits, while 2.3% (n=3) had one prenatal visit.

Three out of every ten mothers (28.9%, n=37) had a maternal health card for the pregnancy with their youngest child, 69.0% (n=89) claimed to have the card but it was not available at the time of the survey, while 1.6% (n=2) reported never having the card.

**Table 11: Number of Prenatal Visits Made by Mothers with a Maternal Health Card**

<b>Number of Visits</b>	<b>Frequency</b>	<b>Percentage</b>
0	1	2.7
1	3	8.1
2	5	13.5
3	6	16.2
4	16	43.2
5	4	10.8
6	2	5.4
Overall	37	100.0

Table 11 shows that majority of the mothers who had prenatal visits (43.2%, n=16) had 4 visits, followed by those who had 3 visits (16.2%, n=6).

About two thirds of the mothers (65.9%, n=85) reported receiving an injection to prevent them from getting convulsions after birth, an anti-tetanus shot or an injection at the top of the shoulder. Most of whom 62.4% (n=53) had a card or other document with their immunization listed.

## MATERNAL AND NEWBORN CARE

Table 12 below gives information on the place of birth of the youngest child of the respondents.

**Table 12: Place of Birth of the Youngest Child**

Place of Birth	Number	Percentage
At Home	66	49.6
Other Home	1	0.8
Hospital	23	17.3
Clinic	6	4.5
Health Centre	31	23.3
PVO Centre	5	3.4
Health Post	0	0.0
Other	1	0.8
Overall	133	100

Table 12 shows that half of the mothers (49.6%, n=66) gave birth from home, 23.3% (n=31) gave birth from a health centre, and 17.3% (n=23) gave birth from the hospital. This shows that a large number of births were not attended by trained health personnel.

Mothers were also asked to mention who assisted them with delivery of the youngest child. Table 13 below shows the distribution by kind of assistance mother's received during delivery.

**Table 13: Kind of Assistant during Delivery**

Kind of Assistant	Number	Percentage
Doctor	4	3.0
Nurse/Midwife	57	42.9
Auxiliary Midwife	3	2.3
TBA	31	23.3
Community Health Worker	1	0.8
Family member	14	10.5
No one	22	16.5
Other	1	0.8
Overall	133	100.0

Table 13 shows that about four out of every ten births (42.9%, n=57) were attended by either a Nurse or Midwife, 23.3% (n=31) were attended by a TBA, and 16.5% (n=22) were attended by no one. This shows that a large number of births were not attended by trained health personnel.

## MALARIA/FEVER

About three of every ten mothers (28.6%, n=38) reported that their youngest child had fever during the two weeks prior to the study. Slightly over half of whom (52.6%, n=20) got treatment from home before seeking advice or treatment outside the home when the child had fever.

**Table 14: Kind of Treatment for Malaria Administered from Home**

Kind of Treatment	Number	Percentage of 20 respondents
Chloroquine/Dawaquine/Malaraqine	2	10.0
Fansidar	1	5.0
Amodiaquine	5	25.0
Quinine	0	0.0
Aspirin	0	0.0
Panadol/Maxadol	3	15.0
Traditional Herbs	0	0.0
Do not remember	10	50.0

Table 14 shows that half of the mothers (50.0%, n=10) who administered treatment to their child from home before seeking advice or treatment outside home when the child had malaria do not remember the kind of treatment they administered and 25.0% (n=5) administered Amodiaquine.

The majority of mothers (84.2%, n=32) sought treatment outside home when their youngest child had fever. Most of whom first sought treatment from a Private Physician (50.0%, n=32) followed by those who sought treatment from a Government Health Facility (34.4%, n=11), see Table 15.

**Table 15: Place where the mother First Sought Treatment when child had Fever**

Place of Treatment	Number	Percentage
Government Hospital	2	6.3
Government Health Facility	11	34.4
Private Physician	16	50.0
Drug Shop	1	3.1
Market Drug Vendors	1	3.1
Traditional Healers	1	3.1
Overall	32	100.0

**Table 16: Kind of Treatment for Fever Obtained from the Place of Treatment Outside Home**

Kind of Treatment	Number	Percentage of 32 respondents
Chloroquine/Dawaquine/Malaraqine	10	30.3
Fansidar	3	9.1
Amodiaquine	2	6.1
Quinine	2	6.1
Aspirin	1	3.0
Panadol/Maxadol	12	36.4
Traditional Herbs	1	3.3

Table 16 shows that about seven out of every ten mothers (69.7%, n=23) who sought treatment for their child outside of the home when the child had fever do not remember the kind of treatment that was administered to the child, and 36.4% (n=12) reported that Panadol/Maxadol was administered.

**Table 17: Symptoms that would cause mothers to seek advice or treatment for a child with Fever**

Symptom	Number	Percentage of 133 respondents
Stiff Neck	14	10.5
Convulsion	37	27.8
Unconsciousness	32	24.1
General Weakness	96	72.2
Failure to Breastfeed/Drink	58	43.6
Vomiting Everything	77	57.9
Others	28	21.1

Table 17 shows that the major symptoms that would cause mothers to seek advice or treatment for a child with fever are general weakness (72.2%, n=96), vomiting (57.9%, n=77), or failure to breastfeed or drink (43.6%, n=58).

**Table 18: Causes of Malaria**

Cause	Number	Percentage of 133 respondents
Drinking unboiled Water	59	44.4
Eating Mangoes, Fresh Maize, etc	7	5.3
Change of weather or being beaten by rain	13	9.8
Mosquito Bites	121	91.0
Others	9	6.8

Majority of the mothers (91.0%, n=121) identified mosquito bites and drinking unboiled water (44.4%, n=59) as the major causes of malaria.

Mothers were also asked what they were currently doing to prevent their children from getting malaria. Table 19 shows the actions currently being undertaken to prevent their children from getting malaria.

**Table 19: Actions being undertaken to Prevent Malaria**

Action being undertaken	Number	Percentage of 133 respondents
Boiling Drinking Water	59	44.4
Avoid Eating Mangoes/Fresh Maize, etc	9	6.8
Using mosquito bed net	61	45.9
Using household sprays	9	6.8
Eliminating stagnant water	44	33.1
Clearing the compound	67	50.4
Using anti-malaria drugs	8	6.0
Traditional herbs	3	2.3
Using local repellents	1	0.8
Others	33	24.8

Table 19 shows that the main actions being undertaken by mothers to prevent malaria are clearing the compound (50.4%, n=67), using mosquito bed net (45.9%, n=61), boiling drinking water (44.4%, n=59) and eliminating stagnant water (33.1%, n=44). Others (24.3%, n=33) were both closing windows and doors early or feeding on a balanced diet to prevent malaria.

Only slightly over a tenth of the respondents (12.0%, n=16) reported using treated mosquito nets in their household, 10.5%, (n=14) reported using mosquito bed nets that were not treated, while the rest (77.4%, n=103) were not using mosquito nets.

Those who reported using mosquito bed nets in their households were further asked who in the household slept under the net the night prior to the survey. Table 20 shows the particular household members who slept under a mosquito bed net.

**Table 20: Person(s) who slept under a mosquito bed net**

Person	Number	Percentage of 30 respondents
Children 0-23 months	26	86.7
Children 24-59 months	6	20.0
Other children above 5 years	1	3.3
Husband	22	73.3
Mother	16	53.3

Table 20 shows that in most households (86.7%, n=26) children 0-23 months slept under a mosquito bed net, in about three quarters of the households (73.3%, n=22) husbands slept under a mosquito bed net, while in slightly over half of the households (53.3%, n=16) mothers slept under the mosquito bed net. Surprisingly in only 3.3%, (n=1) households a child above 5 years slept under a mosquito bed net.

Mothers were also asked on the practice of “millet” extraction. Slightly less than a tenth (7.8%, n=10) of the children had ever had a “millet” extraction.

**Table 21: Mode of prevention of Malaria in Pregnant Mothers**

<b>Mode of Prevention</b>	<b>Number</b>	<b>Percentage of 133 respondents</b>
Windows and doors are closed	82	61.7
Anti-mosquito insecticide is sprayed	12	9.0
Compound cleared of bush	53	39.9
Stagnant water cleared	47	35.3
Use mosquito coil	9	6.8
Burn plant leaves	0	0.0
Burn cow dung	1	0.8
Take Anti-malarial drugs	47	35.3
Use ITNs	84	63.2

Table 21 shows that the main methods used by pregnant mothers to prevent malaria are ITNS (63.2%, n=84), closing windows and doors (61.7%, n=82), and clearing the bush from the compound (39.9%, n=53).

Eight out of every ten mothers (82.0%, n=109) reported taking drugs to prevent them from getting malaria when they were pregnant with their youngest child. A majority of whom (93.6%, n=102) took Fansidar, 4.6%, (n=5) could not remember what they took, while 1.8%, (n=2) took chloroquine.

Mothers were also asked about where they obtained the malarial drugs. Table 22 shows where the drugs were obtained.

**Table 22: Place where drugs were obtained**

<b>Place</b>	<b>Number</b>	<b>Percentage</b>
Traditional Birth Attendant	1	0.9
Health Centre III	58	51.8
Health Centre IV	24	21.4
Hospital	23	20.5
Private Clinics	3	2.7
Drug Shop	2	1.8
Others	1	0.9
Overall	112	100.0

Table 22 shows that about half of the mothers (51.8%, n=58) obtained the drugs from Health Centre III.

Slightly less than two thirds of the mothers (64.9%, n=72) obtained the drugs twice to prevent them from getting malaria during pregnancy of their youngest child, 18.9%, (n=21) obtained the drugs once, and 15.3%, (n=17) obtained the drugs thrice.

## **SICK CHILD AND CARE SEEKING**

Mothers of children who were still breastfeeding at the time of the survey were asked whether they continued breastfeeding the children when the children were sick. Table 23 below shows the responses provided by mothers.

**Table 23: Pattern of Breastfeeding**

<b>Pattern of Breastfeeding</b>	<b>Number</b>	<b>Percentage</b>
More than Usual	5	4.5
Same as Usual	20	18.0
Less than Usual	76	68.5
Deliberately Stopped Breastfeeding	2	1.8
The child refused	8	7.2
Overall	111	100

Table 23 shows that over two thirds of the breastfeeding mothers (68.5%, n=76) breastfed their children less than usual when the children were sick.

Similarly, over two thirds of all the mothers (68.2%, n=88) provided less fluids than usual to their children when they had a sickness, 16.3%, (n=21) provided the same amount of fluids as usual, while the rest (15.5%, n=20) provided more than the usual amount of fluids.

Mothers were also asked whether they provided the children with solid/mashed food when the children were sick. About eight out of ten (82.9%, n=107) reported providing less than the usual amount of solid/mashed food during the child sickness, 13.2%, (n=17) provided the same amount of solid/mashed food as usual, while the rest (3.9%, n=5) provided more than the usual amount of food.

The overwhelming majority of the mothers (94.7%, n=126) reported that there was some person(s) in the household whom they consult with regard to any of their child's illness. About eight out of every ten women (84.9%, n=107) consult the spouse, 12.7%, (n=16) consult a relative, the rest (2.4%, n=3) consult either an adult sibling or other persons.

About eight of every ten mothers (82.5%, n=104) also reported that there was a community member whom they regularly consulted regarding any of their child's illness. Table 24 below shows the persons outside the household that are normally consulted in cases of child illness.

**Table 24: Person(s) outside the household consulted in case of child illness**

Person(s) Consulted	Number	Percentage of 104 respondents
Mother in-Law	37	35.6
Grandmother	17	16.4
Mother	2	1.9
Neighbour	49	47.1
Medical Doctor	14	13.5
Community Health Worker	26	25.0
Traditional Birth Attendant	12	11.5

Table 24 shows that slightly less than half of the mothers (47.1%, n=49) who consulted persons outside the home during child illness consulted neighbours, and 35.6%, (n=37) consulted their mothers in law.

Mothers were further asked about illnesses that would necessitate immediately taking a child to a health facility. Table 25 shows the illness that would necessitate a child to be taken right away to a health facility as reported by mothers.

**Table 25: Illnesses that would necessitate a child to be taken right away to a health facility**

Illness	Number	Percentage of 133 respondents
Child not able to drink or breastfeed	77	57.9
Child becomes sicker	73	54.9
Child develops a fever	92	69.2
Child has rapid breathing	49	36.8
Child has difficulty breathing	44	33.1
Child has blood in stool	13	9.8
Child is drinking poorly	30	22.6
Others	14	10.5

About seven out of every ten mothers (69.2%, n=92) reported that when a child develops a fever, s/he should be take to a health facility immediately, 57.9%, (n=77) reported that a child should be taken to a health facility immediately if s/he is not able to drink or breastfeed, while 54.9%, (n=73) reported that a child should immediately be taken to a health facility if s/he becomes sicker.

The overwhelming majority of the mothers (94.7%, n=126) had taken a child to a health facility.

Considering only the last visit that the mother made to the health unit during the child's illness, mothers were asked who decided that the child should be taken to the health facility for treatment. Table 26 below shows the person(s) who decided as reported by mothers.

**Table 26: Person(s) who decided that the child should be taken to the health facility for treatment**

Person(s) who decided	Number	Percentage of 126 respondents
Mother	62	49.2
Father	53	42.1
Mother and Father	6	4.8
Community Member	1	0.8
Village Health Worker	1	0.8

Table 26 shows that half of the decisions to take children to the health facility (49.2%, n=62) were made by the mothers themselves, and 42.1%, (n=53) were made by their spouses.

Not surprisingly, almost all the mothers (96.0%, n=121) reported taking the children to the health facility themselves when the children were sick. The rest (4.0%, n=5) were taken by either their spouses or other persons.

Slightly over half of the mothers (55.6%, n=70) reported being asked by the health workers to bring the child back to the clinic in a few days. Over three quarters of whom (77.1%, n=54) took their children back a few days later. Amongst those who did not take their children back as requested by the health worker, the major reason was that the child became well before the referral was due (68.8%, n=11), while 18.8%, (n=3) did not take them back because they could not afford additional costs, and 12.5%, (n=2) did not take them back because they did not believe the follow up was necessary.

Mothers were asked to mention some of the factors which might discourage them from seeking treatment for any ill child from a health facility. Table 27 below gives the factors that were advanced by the mothers.

**Table 27: Factors that could discourage mothers from taking ill children to a health facility**

Factor	Number	Percentage Of 133 respondents
Financial Costs	89	66.9
Easy access to drugs outside the health facility	6	4.5
Quality of care is less than satisfactory	13	9.8
Distance	28	21.1
Time away from other work	5	3.8
Time away from other children	6	4.5
Competing needs within the household	5	3.8
Lack of decision making capacity with regard to taking ill child to a health facility	1	0.8
Others	36	27.1

Table 27 shows that the main factors that would discourage a mother from taking ill children to a health facility are financial costs (66.9%, n=89) and distance (21.1%, n=28).

Mothers were also asked about the distance to a common health facility. Most of whom (57.9%, n=77) reported that the distance to the common health facility where they take their children for treatment was less than 5 kilometres, 39.1%, (n=52) reported the health facility was 5-10km away, while the rest (3.0%, n=4) reported that the health facility was more than 10 kilometres away.

Most of the mothers (72.2%, n=96) reported that health workers from the health facility do not make any visits in the community and/or household, while 27.1%, (n=36) reported that they sometimes make visits. Only 0.8% (n=1) reported that they always make visits in the community and/or household.

## HIV/AIDS

All the mothers have heard of an illness called AIDS. Mothers were also asked about how they could tell that someone has HIV/AIDS. Table 28 shows the ways used by mothers to tell whether someone has HIV/AIDS.

**Table 28: Reported ways of telling that someone has HIV/AIDS**

Symptoms of HIV/AIDS	Number	Percentage of 133 respondents
Loss of weight	110	82.7
Clinical testing HIV positive	17	12.8
Constant sickness	58	43.6
Cough	72	54.1
Persistent fever	59	44.4
Loss of appetite	18	13.5
I don't know	3	2.2
Others	57	42.9

Table 28 shows that the main symptoms that mothers use to tell whether someone has HIV/AIDS are loss of weight (82.7%, n=110), cough (54.1%, n=72), persistent fever (44.4%, n=59), and constant sickness (43.6%, n=58). Only 12.8%, (n=17) use clinical testing to tell that a person has HIV/AIDS.

All the mothers knew that there is something a person can do to avoid getting infected with HIV/AIDS. Table 29 shows what a person can do, according to interviewees, to avoid getting infected with HIV/AIDS.

**Table 29: Ways of avoiding catching HIV/AIDS**

<b>Mode of Avoiding</b>	<b>Number</b>	<b>Percentage of 133 respondents</b>
Abstaining from sex	113	85.0
Use of condoms	89	66.9
Limiting sex to one partner/stay faithful to one partner	33	24.8
Limit number of sexual partners	4	3.0
Avoid sex with prostitutes	4	3.0
Avoid sex with persons who have many sexual partners	3	2.3
Avoid sex with persons of the same sex	0	0.0
Avoid sex with persons who inject drugs intravenously	0	0.0
Avoid blood transfusions	7	5.3
Avoid injections	25	18.8
Avoid kissing	0	0.0
Seek protection from traditional healer	0	0.0
Avoid sharing razor blades	44	33.1
Others	4	3.0

Table 29 shows that the main ways to avoid catching HIV/AIDS as reported by mothers are abstaining from sex (85.0%, n=113), using condoms (66.9%, n=89), avoid sharing razor blades (33.1%, n=44) and limiting sex to one partner/being faithful to one partner (24.8%, n=33).

Though all the respondents agreed that the virus that causes AIDS could be transmitted from a mother to a child, two thirds of them (66.9%, n=89) thought that the virus could be transmitted to the child during pregnancy, 94.0%, (n=125) thought that it could be transmitted during delivery, and 68.4%, (n=90) thought that it could be transmitted during breastfeeding.

The overwhelming majority of the respondents (97.7%, n=130) had heard of HIV/AIDS counselling and testing services. Most of whom (36.1%, n=48) would go to a health clinic if they wanted to take an HIV/AIDS test, 33.1%, (n=44) would go to a hospital, 28.6%, (n=38) would go to a VCT centre, while the rest (2.2%, n=3) would go to other places.

About three out of every ten respondents (31.6%, n=42) have been tested for HIV/AIDS. Almost all of whom (97.6%, n=41) received counselling before getting tested. All the respondents who have been tested for HIV/AIDS received their results.

A majority of the respondents who have been tested for HIV/AIDS (85.7%, n=36) received counselling after getting the results.

About seven out of every ten respondents (69.2%, n=92) would be willing to care for a relative if s/he became sick with HIV/AIDS.

About a quarter of the mothers (24.1%, n=32) agreed that a teacher who has the AIDS virus but is not sick should be allowed to continue teaching in a school.

About a third of the mothers (32.3%, n=43) would allow their child to play with a child who has the AIDS virus.

## **CIMCI PLUS INDICATORS**

### **MALARIA CONTROL**

Overall, one out of every ten children aged 0-23 months (9.8%) slept under an insecticide-treated bed net the night prior to the survey. The percentage that slept under an insecticide-treated bed net was lower than the baseline average of 14.4% and was slightly less than half the end term target of 20%. This indicator needs to receive special attention in the next malaria control intervention since malaria is one of the leading causes of mortality. Activities should focus on Kayonza, Ihunga, Itojo, and Nyakyera sub-counties, as these had the lowest ITN usage among children under 23 months.

Compared to the baseline level, steady progress has been made on the percentage of pregnant mothers who received IPT during pregnancy at the 4<sup>th</sup> and 7<sup>th</sup> months, especially in Rugarama and Kayonza. Although, the percentage of pregnant mothers who received IPT during pregnancy at the 4<sup>th</sup> and 7<sup>th</sup> months (9.8%) was higher than the baseline average of 5.5%, more needs to be done to attain the end term target of 20%. Activities should focus on all supervision areas except Rugarama and Kayonza in order to improve this indicator.

The percentage of children 6-23 months with fever who were given the same or more fluids was below average in the majority of supervision areas. Only 35.3% of the children 6-23 months with fever were given same or more fluids. Efforts on all supervision areas, especially, Itojo, Rugarama, and Ruhama, need to be intensified in order to improve this indicator and attain the end term target of 90%.

The percentage of children 0-23 months with fever who were given the same or more solid/mashed food was below average in all supervision areas, except Ihunga and Kayonza. Only 8.8% of the children 0-23 months with fever were given same or more solid/mashed foods. . Activities need to be intensified in all supervision areas to ensure achievement of the 80% end target.

The practice of millet extraction continues to pose a serious challenge. Slightly less than a tenth (7.8%) of the children 0-23 months were taken for millet extraction.

The practice of millet extraction was particularly rampant in Nyakyera and Kayonza. IEC and BCC activities regarding millet extraction strengthened in these two supervision areas to improve results under the malaria component.

## **IMMUNIZATION**

The percentage of children aged 12-23 months who were fully vaccinated (against the five vaccine-preventable diseases) before their first birthday was above average in all supervision areas, except Itojo and Ruhama. Overall 63.0% of the children aged 12-23 months were fully vaccinated before their first birthday. This percentage is much higher than the baseline average of 52.1% and only slightly lower than the end term target of 65%. Focus on Itojo and Ruhama sub-counties will improve results for this indicator.

Likewise, the percentage of children aged 12-23 months who received a measles vaccine was above average in all supervision areas except Itojo and Ruhama. Overall 64.4% of the children aged 12-23 months had received a measles vaccine. This percentage was much higher than both the baseline average of 38.1% and the end term target of 50%. IEC and BCC need to be strengthened in Itojo and Ruhama, followed by additional vaccination campaigns.

The percentage of mothers of children aged 0-23 months who received at least two tetanus toxoid injections before the birth of the youngest child was above average in all supervision areas except Itojo and Ruhama. Overall 33.8% of the mothers of children aged 0-23 months had received at least two tetanus toxoid injections before the birth of the youngest child. This percentage is slightly higher than the baseline average of 28.6% but lower than the end term target of 40%. Efforts in Itojo and Ruhama should be increased.

## **NUTRITION, MICRONUTRIENTS AND BREASTFEEDING**

The findings show that all infants aged 0-5 months were exclusively breastfed in the last 24 hours prior to the survey.

The percentage of children 0-23 months who were breastfed within the first 60 minutes of delivery was above average in all supervision areas except Kayonza. Overall, two thirds (67.7%) of the children 0-23 months were breastfed within the first 60 minutes of delivery. This was slightly higher than the baseline average of 64% but much lower than the end target of 80%. Activities need to focus on Kayonza, Bwongyera and Nyakyera in order to improve this indicator.

Among the nutrition, micronutrients and breastfeeding indicators, the percentage of mothers of children 0-23 months who indicate that children should be exclusively breastfed for six months seems to be the biggest problem. Just over half (55.6%) of the mothers with children 0-23 months indicate that children should be exclusively breastfed for six months. Efforts should focus on all supervision areas except Rugarama to attain the end term target of 85%.

## **HIV/AIDS**

The percentage of mothers with children 0-23 months who cite that HIV/AIDS can be transmitted through pregnancy, delivery and breastfeeding was above average in all supervision areas except Bwongyera and Kayonza. Overall, slightly less than half (47.4%) of the mothers with children 0-23 months cite that HIV/AIDS can be transmitted through pregnancy, delivery and breastfeeding. The percentage is higher than the baseline average of 36.2% and only slightly less than the end term target of 50%. Activities need to focus on Bwongyera and Kayonza to achieve the end term targets.

Knowledge of ways of reducing the risk of HIV/AIDS was found to be high. The percentage of mothers of children 0-23 months who cite at least two known ways of reducing the risk of HIV/AIDS infection was found to be above average in all supervision areas except Ruhama. Overall about three quarters (77.4%) of the mothers of children 0-23 months cited at least two known ways of reducing the risk of HIV/AIDS infection. This percentage was much higher than the baseline average of 68.8% but slightly lower than the end term target of 80%. Increased efforts are needed in Ruhama sub-county.

Among the HIV/AIDS indicators, the percentage of mothers of children 0-23 months who indicate that they could allow an HIV positive child to play with theirs appears to be the biggest problem. Only about a third (32.3%) of the mothers would allow an HIV positive child to play with theirs. More needs to be done in all supervision areas, especially Kayonza, to achieve the end term target of 80%.

## **CONTROL OF DIARRHOEAL DISEASES**

Among the control of diarrhoeal diseases tremendous progress has been made on the percentage of households with designated hand washing facilities with soap/ash present that also mentioned the importance of washing hands after defecation to prevent diarrhoea (58.4%). This percentage was much higher than both the baseline average of 4% and the end term target of 10%. More efforts however, need to be directed towards Bwongyera and Kayonza to further improve this indicator.

The percentage of diarrhoea sick children 6-23 months that were given same or more solid or mashed food was very low in all supervision areas. This practice should receive special attention in the program's nutrition intervention in order to attain the end term target of 75%. The percentage of diarrhoea sick children 6-23 months that were given same or more solid or mashed food was only 11.4%.

The percentage of diarrhoea sick children 6-23 months that were given same or more fluids was also low in all supervision areas. This practice should receive special attention in the program's nutrition intervention in order to attain the end term target of 95%. The percentage of diarrhoea sick children 0-23 months that were given same or more fluids was only 42.9%.

Tremendous progress was made in the percentage of children 0-23 months with diarrhoea who were treated with ORS. Overall 42.9% of the children 0-23 months with diarrhoea were treated with ORS. The percentage was much higher than both the

baseline average of 8.7% and the end term target of 15%. The program however, needs to focus on Ruhama, Ihunga and Kayonza to further improve this indicator.

Tremendous progress also seems to have been registered in terms of the percentage of mothers with children 0-23 months that can identify at least two signs of diarrhoea requiring treatment. The knowledge levels were high in all supervision areas. Overall 82.7% of the mothers could identify at least two signs of diarrhoea requiring treatment. This percentage was much higher than the baseline average of 69.8% and slightly higher than the end term target of 80%.

The percentage of children 0-23 months who were taken for false tooth extraction had tremendously declined from 42.5% in the baseline survey to 27.8% in the mid-term. More efforts however, still need to be directed towards further reducing the practice especially in Bwongyera and Ihunga.

### **CATCH INDICATORS**

The percentage of children aged 0-23 months who were underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population) was 27.3%. In other words about three out of every ten children in this age group were underweight. The incidence of being underweight was particularly rampant in Bwongyera, Nyakyera, Ihunga, Kayonza and Ruhama.

Overall the percentage of children aged 0-23 months that were attended by skilled health personnel was 46.6%. More efforts however, need to be directed towards Ihunga, Nyakyera and Kayonza to improve this indicator.

The percentage of infants 6-9 months receiving breast milk and complementary foods was above average in all supervision areas. Almost all infants (96.2%) aged 6-9 months were receiving breast milk and complementary food.

Like wise the percentage of mothers who knew at least two signs of childhood illness that indicate the need for treatment was above average in all supervision areas. Overall, 94.0% of the mothers knew at least two signs of childhood illness that indicate the need for treatment.

Overall, 57.9% of sick children 0-23 months received increased fluids and continued feeding during an illness in the two weeks prior to the survey. More needs to be done in this area in order to achieve the end term target of 85%. Activities need to focus on Rugarama, Ihunga and Nyakyera, Kayonza and Ruhama to improve this indicator.

The percentage of mothers of children aged 0-23 months that wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated was only 1.5%. However, it should be noted that the percentage of mothers that mentioned at least one of the four indicators was 98.6%, those who mentioned at least two of the indicators were 73.0%, while those who mentioned at least three of the four indicators were 33.9%.

## **Action Plans and Goals/ Coverage Targets for Key Indicators**

### **CIMCI PLUS INDICATORS**

#### **CONTROL OF MALARIA**

Among the malaria control indicators, the priority activities could be to investigate the reasons why households are reluctant to use insecticide-treated bed nets, perceived concepts about insecticide-treated bed nets and preferred treatments for control of malaria. Activities could then build upon the local understanding and conceptualisation about the use of insecticide-treated bed nets to develop appropriate strategies for improving use of the bed nets.

The practice of giving children more fluids and/or more solid/mashed foods when sick also seemed to be on the decline compared to the baseline. An investigation needs to be launched to find out why this practice seems to be on the decline. The investigation will lead to get a better understanding of community perceptions, and identify recent events that may have changed the opinions of the community towards giving more fluids and/or solid/mashed foods and help to shape interventions in this area.

The practice of taking children for millet extraction also needs a thorough study. The study should dwell mainly on identifying and understanding the cultural norms associated with this practice. The practice was particularly found to be common in Nyakyera and Kayonza.

#### **IMMUNIZATION**

The interventions on the immunization indicators seem to have been effective in almost all supervision areas. The interventions however, need to be intensified in Itojo and Ruhama to achieve the end term targets.

#### **NUTRITION, MICRONUTRIENTS AND BREASTFEEDING**

The interventions in this area need to be intensified. There seems to have been only a slight improvement in some indicators and a drop in other indicators compared to the baseline situation. For instance the percentage of children 0-23 months who were breastfed within the first minutes only improved slightly from 64% to 67.7%, while the percentage of mothers of children 0-23 months who indicate that children should be exclusively breastfed for six months declined from 73% to 55.6%. More sensitization needs to be carried out to increase both the knowledge and the practice of exclusive breastfeeding.

#### **HIV/AIDS**

Both knowledge of ways through which HIV/AIDS could be transmitted and knowledge of ways of reducing the risk of HIV/AIDS infection seemed to have increased compared to the baseline, however sensitization efforts need to be intensified to increase knowledge in Kayonza and Bwongyera.

The stigma associated with HIV positive children seemed to have also increased. Only 32.3% compared to 39.9% (baseline) of the mothers with children 0-23 months indicate that they could allow an HIV positive child to play with theirs. A study needs to be done to clearly understand the community fears/stigma associated with their children playing with HIV positive children so that appropriate interventions can be launched to reduce the stigma.

## **CONTROL OF DIARRHOEAL DISEASES**

Though a lot has already been achieved on this particular indicator, more sensitization needs to be done to further increase the percentage of households with designated hand washing facilities with soap/ash present that mention the importance of washing hands after defecation to prevent diarrhoea.

The practice of giving children more fluids and/or more solid/mashed foods when sick with diarrhoea followed a similar trend as was the case for children sick with fever. There seemed to be a decline in the percentage of diarrhoea sick children that were given more fluids and/or more solid/mashed foods compared to the baseline. An investigation needs to be launched to find out why this practice seems to be on the decline. The investigation will enable a better understanding of the community perceptions, and identify recent events that may have changed the opinions of the community towards giving more fluids and/or solid/mashed foods and help to shape interventions in this area.

Though the percentage of children 0-23 months with diarrhoea who were treated with ORS has substantially increased, further sensitization needs to be done to achieve higher targets. The program particularly, needs to focus on Ruhama, Ihunga and Kayonza to further improve this indicator.

The practice of taking children for false tooth extraction also needs a thorough study. The study should dwell mainly on identifying and understanding the cultural norms associated with this practice. The practice was found to be particularly common in Bwongyera and Ihunga.

## **CATCH INDICATORS**

A study needs to be conducted to identify the locally available foods rich in nutrients necessary for growth and development so that appropriate strategies can be laid to reduce the incidence of being underweight in the program area. The incidence of being underweight was particularly rampant in Bwongyera, Nyakyera, Ihunga, Kayonza and Ruhama.

A study needs to be conducted to establish the reason why over half of the births in the program area are not attended by skilled health personnel. This will enable development of appropriate interventions to increase the percentage of births attended by skilled health personnel.

## Coverage Targets for Key Indicators

### AFRICARE/NTUNGAMO CIMCI-PLUS IMPACT INDICATORS

<b>CONTROL OF MALARIA (35%)</b>			
<b>Indicator</b>	<b>Baseline</b>	<b>Mid-Term</b>	<b>Target</b>
1. Percentage of children aged 0-23 months who slept under an insecticide-treated bed net the previous night (in malaria-risk areas only)	14.4%	9.8%	20%
2. Percentage of pregnant mothers who received IPT during pregnancy at the 4 <sup>th</sup> and 7 <sup>th</sup> months	5.5%	9.8%	20%
3. Percentage of children 6-23 months with fever that were given same or more fluids	75.5%	35.3%	90%
5. Percentage of children 6-23 months that were given same or more solid/mashed foods	64%	8.8%	80%
6. Percentage of children 0-23 months who were taken for millet extraction	10.6%	7.8%	4%
<b>IMMUNIZATION (25%)</b>			
1. Percentage of children age 12-23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday	52.1%	63.0%	65%
2. Percentage of children age 12-23 months who received a measles vaccine	38.1%	64.4%	50%
3. Percentage of mothers of children age 0-23 months who received at least two tetanus toxoid injections before the birth of the youngest child	28.6%	33.8%	40%
<b>NUTRITION, MICRONUTRIENTS AND BREASTFEEDING (15%)</b>			
1. Percentage of infants age 0-5 months who were exclusively breastfed in the last 24 hours	77%	100%	90%
2. Percentage of children 0-23 months who were breastfed within the first 60 minutes of delivery	64%	67.7%	80%
3. Percentage of mother of children 0-23 months who indicate that children should be exclusively breastfed for six months	73%	55.6%	85%
<b>HIV/AIDS (15%)</b>			
1. Percentage of mothers with children 0-23 months who cite that HIV/AIDS can be transmitted through pregnancy, delivery and breastfeeding	36.2%	47.4%	50%
2. Percentage of mothers of children 0-23 months who cite at least two known ways of reducing the risk of HIV/AIDS infection	68.8%	77.4%	80%
4. Percentage of mothers with children 0-23 months who indicate that they can allow an HIV positive child to play with theirs	39.9%	32.3%	80%
<b>CONTROL OF DIARRHEAL DISEASES (10%)</b>			
1. Percentage of households with designated hand washing facilities with soap/ash present that mentioned the importance of washing hands after defecation to prevent diarrhea	4%	58.4%	10%
2. Percentage of diarrhoea sick children 6-23 months that were given same or more solid or mashed food	60.4	11.4%	75%
3. Percentage of diarrhea sick children 0-23 months that were given same or more fluids	81.5%	42.9%	92%
4. Percentage of children 0-23 months with diarrhoea who were treated with ORS	8.7%	42.9%	15%
5. Percentage of mothers with children 0-23 months who can identify at least two signs of diarrhoea requiring treatment	69.8%	82.7%	80%
6. Percentage of children 0-23 months who were taken for false tooth extraction	42.5%	27.8%	30%

## CATCH INDICATORS

Indicator <sup>2</sup>	Baseline	Mid-Term	Target
1. Percentage of children age 0-23 months who are underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population)	-	27.3%	
2. Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child	-	-	
3. Percentage of children age 0-23 months whose births were attended by skilled health personnel	-	46.6%	
4. Percentage of mothers of children age 0-23 months who received at least two tetanus toxoid injections before the birth of their youngest child	28.6%	33.8%	
5. Percentage of infants age 0-5 months who were exclusively breastfed in the last 24 hours	76.7%	100%	
6. Percentage of infants age 6-9 months receiving breast milk and complementary foods	88.2%	96.2%	
7. Percentage of children age 12-23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday	52.1%	63.0%	
8. Percentage of children age 12-23 months who received a measles vaccine	38.1%	64.4%	
9. Percentage of children age 0-23 months who slept under an insecticide-treated bed net the previous night (in malaria-risk areas only)	14.1%	9.8%	
10. Percentage of mothers who know at least two signs of childhood illness that indicate the need for treatment	78.4%	94.0%	
11. Percentage of sick children age 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks	72.7%	57.9%	
12. Percentage of mothers of children age 0-23 months who cite at least two known ways of reducing the risk of HIV infection	68.8%	77.4%	
13. Percentage of mothers of children age 0-23 months who wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated	6.2%	1.5%	

<sup>2</sup> Baseline data was not collected for indicators 1, 2, and 3 because they are not part of the CIMCI Project's intervention areas.

## **Conclusions and Recommendations**

### **Conclusions**

In a nutshell, the program seems to be doing well in terms of the immunization indicators in all supervision areas except Itojo and Ruhama.

The implementation of malaria control indicators is still problematic and more interventions need to be directed towards these indicators.

The program is also performing well in terms of the HIV/AIDS indicators in terms of knowledge of spread and methods of reducing the risks of infection. However, stigma of HIV positive patients still exists as evidenced by the low percentage of mothers of children aged 0-23 months who would allow their children to play with HIV positive children.

The program also seems to be back peddling in terms of feeding practices of children sick with fever or diarrhoea. Only a small proportion of mothers indicated that children sick with malaria and/or fever should be given more fluids and/or solid/mashed food.

Although progress has been registered on the nutrition, micronutrients and breastfeeding indicators, more needs to be done on this intervention. The percentage of underweight children, 27.3%, is still too high.

The practices of millet and false tooth extraction still exist and need to be addressed as a matter of priority.

### **Recommendations**

- The program should focus activities on the malaria control, control of diarrhoeal diseases, nutrition, and micronutrients.
- The program needs to conduct some operations research to identify the cultural practices and norms associated with the practices of millet and false tooth extraction
- The program also needs to establish why the communities do not give increased fluids and/or solid/mashed food when children are sick with malaria or fever. More sensitisation needs to be conducted in this area
- A study also needs to be conducted to establish the main locally grown food items that are rich in the various nutrients necessary for child growth and development in order to sensitize the communities about the importance of these products. This will help improve the program's nutrition intervention and reduce the incidence of underweight children in the program area.
- In addition, in order to achieve the end term targets the program needs to implement all the activities identified under the action plans.

## Appendices

### APPENDIX I: RESEARCH TEAM COMPOSITION OF THE RESEARCH TEAM

#### PRINCIPAL INVESTIGATOR

SNO.	NAME	TITLE	ORGANISATION
1	Felix Wamono	Lecturer/Consultant	ISAE, Makerere University

#### SUPERVISORS

SNO.	NAME	TITLE	ORGANISATION
1	Paul Semakula	Program Coordinator	Africare Ntungamo CIMCI
2	Innocent Atukunda	M&E Officer	Africare Ntungamo CIMCI
3	Denis Nuwagaba	BCCS	Africare Ntungamo CIMCI
4	Tamara Nsubuga	Nutrition Officer	Africare Ntungamo CIMCI
5	Charles Serwanja	M&E Officer	Africare Ntungamo COPE

#### ENUMERATORS

SNO.	NAME	TITLE	ORGANISATION
1	Francis Twesigye	DHE	Ntungamo District
2	James Ndyanabo	TB/Leprosy Coordinator	Ntungamo District
3	Shebah Turyagira	HMIS Officer	Ntungamo District
4	Jane Birungi	DNO	Ntungamo District
5	Fred Bamwine	Records Officer	Ntungamo District
6	Japheth Nyette	Health Inspector	Ntungamo District
7	Leocadia Mugisha	Private Midwife	Ntungamo District
8	Brazio Turyabitunga	CCB Trainer	Ntungamo District

**APPENDIX II: LQAS TABLES**  
**CIMCI PLUS INDICATORS LQAS TABLES**

**MALARIA CONTROL**

Table 1:

**Indicator:** Percentage of children aged 0-23 months that slept under an insecticide-treated bed net the previous night (in malaria-risk areas only)

	<b>BASELINE</b>	<b>MID-TERM</b>
<b>Target</b>		<b>20</b>
<b>Decision Rule</b>		<b>1</b>
<b>Rounded Average</b>	<b>15</b>	<b>10</b>
<b>Decision Rule</b>	<b>N/A</b>	<b>N/A</b>
<b>Bwongyera</b>		5
<b>Ihunga</b>		1
<b>Itojo</b>		1
<b>Nyakyera</b>		1
<b>Ruhama</b>		3
<b>Rugarama</b>		2
<b>Kayonza</b>		0** <sup>3</sup>
<b>Average</b>	14.4	9.8

Table 2:

**Indicator:** Percentage of pregnant mothers who received IPT during pregnancy at the 4<sup>th</sup> and 7<sup>th</sup> months

	<b>BASELINE</b>	<b>MID-TERM</b>
<b>Target</b>		<b>20</b>
<b>Decision Rule</b>		<b>1</b>
<b>Rounded Average</b>	<b>10</b>	<b>10</b>
<b>Decision Rule</b>	<b>N/A</b>	<b>N/A</b>
<b>Bwongyera</b>		0**
<b>Ihunga</b>		1
<b>Itojo</b>		0**
<b>Nyakyera</b>		0**
<b>Ruhama</b>		0**
<b>Rugarama</b>		5
<b>Kayonza</b>		7
<b>Average</b>	5.5	9.8

<sup>3</sup> Both below the average coverage for all Supervision Areas as well as below the Coverage Target for the entire program- Highest Priority for Action

Table 3:

**Indicator:** Percentage of children 6-23 months with fever that were given same or more fluids

	BASELINE	MID-TERM
<b>Target</b>		<b>90</b>
<b>Decision Rule</b>		<b>15</b>
<b>Rounded Average</b>	<b>80</b>	<b>40</b>
<b>Decision Rule</b>	<b>13</b>	<b>5</b>
Bwongyera		19 <sup>4</sup>
Ihunga		8* <sup>5</sup>
Itojo		0**
Nyakyera		7
Ruhama		4**
Rugarama		2**
Kayonza		7*
<b>Average</b>	75.5	35.3

Table 4:

**Indicator:** Percentage of children 6-23 months that were given same or more solid/mashed foods

	BASELINE	MID-TERM
<b>Target</b>		<b>80</b>
<b>Decision Rule</b>		<b>13</b>
<b>Rounded Average</b>	<b>65</b>	<b>10</b>
<b>Decision Rule</b>	<b>10</b>	<b>N/A</b>
Bwongyera		0**
Ihunga		5*
Itojo		0**
Nyakyera		0**
Ruhama		0**
Rugarama		0**
Kayonza		3*
<b>Average</b>	64.0	8.8

<sup>4</sup> Figures in this table have been scaled up to 19 for easy interpretation using the LQAS decision table

<sup>5</sup> Below the coverage Target for the Program – Second Highest Priority for Action

Table 5:

**Indicator:** Percentage of children 0-23 months who were taken for millet extraction

	BASELINE	MID-TERM
<b>Target</b>		<b>0</b>
<b>Decision Rule</b>		<b>N/A</b>
<b>Rounded Average</b>	<b>5</b>	<b>5</b>
<b>Decision Rule</b>	<b>N/A</b>	<b>N/A</b>
<b>Bwongyera</b>		1*
<b>Ihunga</b>		0
<b>Itojo</b>		1*
<b>Nyakyera</b>		3**
<b>Ruhama</b>		1*
<b>Rugarama</b>		1*
<b>Kayonza</b>		3**
<b>Average</b>	10.6	7.8

## IMMUNIZATION

Table 6:

**Indicator:** Percentage of children age 12-23 months who are fully vaccinated (against the eight vaccine-preventable diseases) before the first birthday

	BASELINE	MID-TERM
<b>Target</b>		<b>65</b>
<b>Decision Rule</b>		<b>10</b>
<b>Rounded Average</b>	<b>55</b>	<b>65</b>
<b>Decision Rule</b>	<b>8</b>	<b>10</b>
<b>Bwongyera</b>		15 <sup>6</sup>
<b>Ihunga</b>		13
<b>Itojo</b>		8**
<b>Nyakyera</b>		15
<b>Ruhama</b>		7**
<b>Rugarama</b>		12
<b>Kayonza</b>		12
<b>Average</b>	52.1	63.0

<sup>6</sup> Figures in this table have been scaled up to 19 for easy interpretation using the LQAS decision table

Table 7:

**Indicator:** Percentage of children age 12-23 months who received a measles vaccine

	BASELINE	MID-TERM
<b>Target</b>		<b>50</b>
<b>Decision Rule</b>		<b>7</b>
<b>Rounded Average</b>	<b>40</b>	<b>65</b>
<b>Decision Rule</b>	<b>5</b>	<b>10</b>
Bwongyera		12 <sup>7</sup>
Ihunga		13
Itojo		8*
Nyakyera		15
Ruhama		8*
Rugarama		15
Kayonza		12
<b>Average</b>	38.1	64.4

Table 8:

**Indicator:** Percentage of mothers of children age 0-23 months who received at least two tetanus toxoid injections before the birth of the youngest child

	BASELINE	MID-TERM
<b>Target</b>		<b>40</b>
<b>Decision Rule</b>		<b>5</b>
<b>Rounded Average</b>	<b>30</b>	<b>40</b>
<b>Decision Rule</b>	<b>3</b>	<b>5</b>
Bwongyera		6
Ihunga		7
Itojo		2**
Nyakyera		7
Ruhama		5
Rugarama		10
Kayonza		8
<b>Average</b>	28.6	33.8

<sup>7</sup> Figures in this table have been scaled up to 19 for easy interpretation using the LQAS decision table

## NUTRITION, MICRONUTRIENTS AND BREASTFEEDING

Table 9:

**Indicator:** Percentage of infants age 0-5 months who were exclusively breastfed in the last 24 hours

	BASELINE	MID-TERM
<b>Target</b>		<b>90</b>
<b>Decision Rule</b>		<b>15</b>
<b>Rounded Average</b>	<b>80</b>	<b>100</b>
<b>Decision Rule</b>	<b>13</b>	<b>N/A</b>
<b>Bwongyera</b>		19 <sup>8</sup>
<b>Ihunga</b>		19
<b>Itojo</b>		19
<b>Nyakyera</b>		19
<b>Ruhama</b>		-
<b>Rugarama</b>		19
<b>Kayonza</b>		-
<b>Average</b>	77	100

Table 10:

**Indicator:** Percentage of children 0-23 months who were breastfed within the first 60 minutes of delivery

	BASELINE	MID-TERM
<b>Target</b>		<b>80</b>
<b>Decision Rule</b>		<b>13</b>
<b>Rounded Average</b>	<b>65</b>	<b>70</b>
<b>Decision Rule</b>	<b>10</b>	<b>11</b>
<b>Bwongyera</b>		12*
<b>Ihunga</b>		14
<b>Itojo</b>		14
<b>Nyakyera</b>		12*
<b>Ruhama</b>		14
<b>Rugarama</b>		14
<b>Kayonza</b>		10**
<b>Average</b>	64	67.7

<sup>8</sup> Figures in this table have been scaled up to 19 for easy interpretation using the LQAS decision table

Table 11:

**Indicator:** Percentage of mothers of children 0-23 months who indicate that children should be exclusively breastfed for six months

	BASELINE	MID-TERM
<b>Target</b>		<b>85</b>
<b>Decision Rule</b>		<b>14</b>
<b>Rounded Average</b>	<b>75</b>	<b>60</b>
<b>Decision Rule</b>	<b>12</b>	<b>9</b>
Bwongyera		7**
Ihunga		9*
Itojo		7**
Nyakyera		13*
Ruhama		12*
Rugarama		16
Kayonza		10**
<b>Average</b>	73	55.6

## HIV/AIDS

Table 12:

**Indicator:** Percentage of mothers with children 0-23 months who cite that HIV/AIDS can be transmitted through pregnancy, delivery and breastfeeding

	BASELINE	MID-TERM
<b>Target</b>		<b>50</b>
<b>Decision Rule</b>		<b>7</b>
<b>Rounded Average</b>	<b>40</b>	<b>50</b>
<b>Decision Rule</b>	<b>5</b>	<b>7</b>
Bwongyera		6**
Ihunga		9
Itojo		13
Nyakyera		9
Ruhama		10
Rugarama		11
Kayonza		5**
<b>Average</b>	36.2	47.4

Table 13:

**Indicator:** Percentage of mothers of children 0-23 months who cite at least two known ways of reducing the risk of HIV/AIDS infection

	BASELINE	MID-TERM
<b>Target</b>		<b>80</b>
<b>Decision Rule</b>		<b>13</b>
<b>Rounded Average</b>	<b>70</b>	<b>80</b>
<b>Decision Rule</b>	<b>11</b>	<b>13</b>
Bwongyera		13
Ihunga		18
Itojo		18
Nyakyera		14
Ruhama		12**
Rugarama		13
Kayonza		15
<b>Average</b>	68.8	77.4

Table 14:

**Indicator:** Percentage of mothers with children 0-23 months who indicate that they can allow an HIV positive child to play with theirs

	BASELINE	MID-TERM
<b>Target</b>		<b>80</b>
<b>Decision Rule</b>		<b>13</b>
<b>Rounded Average</b>	<b>40</b>	<b>35</b>
<b>Decision Rule</b>	<b>5</b>	<b>4</b>
Bwongyera		8*
Ihunga		8*
Itojo		8*
Nyakyera		6*
Ruhama		7*
Rugarama		5*
Kayonza		1**
<b>Average</b>	39.9	32.3

## CONTROL OF DIARRHEAL DISEASES

Table 15:

**Indicator:** Percentage of households with designated hand washing facilities with soap/ash present that mentioned the importance of washing hands after defecation to prevent diarrhoea

	BASELINE	MID-TERM
<b>Target</b>		<b>10</b>
<b>Decision Rule</b>		<b>N/A</b>
<b>Rounded Average</b>	<b>5</b>	<b>60</b>
<b>Decision Rule</b>	<b>N/A</b>	<b>9</b>
<b>Bwongyera</b>		2**
<b>Ihunga</b>		9*
<b>Itojo</b>		12
<b>Nyakyera</b>		12
<b>Ruhama</b>		11
<b>Rugarama</b>		14
<b>Kayonza</b>		6**
<b>Average</b>	4	58.4

Table 16:

**Indicator:** Percentage of diarrhoea sick children 6-23 months that were given same or more solid or mashed food

	BASELINE	MID-TERM
<b>Target</b>		<b>75</b>
<b>Decision Rule</b>		<b>12</b>
<b>Rounded Average</b>	<b>65</b>	<b>15</b>
<b>Decision Rule</b>	<b>10</b>	<b>N/A</b>
<b>Bwongyera</b>		3 <sup>9</sup> *
<b>Ihunga</b>		4*
<b>Itojo</b>		0**
<b>Nyakyera</b>		2*
<b>Ruhama</b>		0**
<b>Rugarama</b>		0**
<b>Kayonza</b>		4*
<b>Average</b>	60.4	11.4

<sup>9</sup> Figures in this table have been scaled up to 19 for easy interpretation using the LQAS decision table

Table 17:

**Indicator:** Percentage of diarrhoea sick children 0-23 months that were given same or more fluids

	BASELINE	MID-TERM
<b>Target</b>		<b>95</b>
<b>Decision Rule</b>		<b>16</b>
<b>Rounded Average</b>	<b>85</b>	<b>45</b>
<b>Decision Rule</b>	<b>14</b>	<b>6</b>
Bwongyera		12*
Ihunga		9*
Itojo		6*
Nyakyera		8*
Ruhama		6*
Rugarama		0**
Kayonza		14*
<b>Average</b>	81.5	42.9

Table 18:

**Indicator:** Percentage of children 0-23 months with diarrhoea who were treated with ORS

	BASELINE	MID-TERM
<b>Target</b>		<b>15</b>
<b>Decision Rule</b>		<b>N/A</b>
<b>Rounded Average</b>	<b>10</b>	<b>45</b>
<b>Decision Rule</b>	<b>N/A</b>	<b>6</b>
Bwongyera		9
Ihunga		9
Itojo		19
Nyakyera		8
Ruhama		0**
Rugarama		15
Kayonza		4**
<b>Average</b>	8.7	42.9

Table 19:

**Indicator:** Percentage of mothers with children 0-23 months who can identify at least two signs of diarrhoea requiring treatment

	BASELINE	MID-TERM
<b>Target</b>		<b>80</b>
<b>Decision Rule</b>		<b>13</b>
<b>Rounded Average</b>	<b>70</b>	<b>85</b>
<b>Decision Rule</b>	<b>11</b>	<b>14</b>
Bwongyera		17
Ihunga		17
Itojo		18
Nyakyera		14
Ruhama		14
Rugarama		17
Kayonza		13*
<b>Average</b>	69.8	82.7

Table 20:

**Indicator:** Percentage of children 0-23 months who were taken for false tooth extraction

	BASELINE	MID-TERM
<b>Target</b>		<b>30</b>
<b>Decision Rule</b>		<b>3</b>
<b>Rounded Average</b>	<b>40</b>	<b>30</b>
<b>Decision Rule</b>	<b>5</b>	<b>3</b>
Bwongyera		11**
Ihunga		7**
Itojo		4**
Nyakyera		5**
Ruhama		3
Rugarama		3
Kayonza		4**
<b>Average</b>	42.5	27.8

## CATCH CIMCI INDICATORS LQAS TABLES

Table 21:

**Indicator:** Percentage of children age 0-23 months who are underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population)

	BASELINE	MID-TERM
<b>Target</b>		
<b>Decision Rule</b>		
<b>Rounded Average</b>		<b>25</b>
<b>Decision Rule</b>		<b>2</b>
<b>Bwongyera</b>		8*
<b>Ihunga</b>		6*
<b>Itojo</b>		1
<b>Nyakyera</b>		8*
<b>Ruhama</b>		4*
<b>Rugarama</b>		1
<b>Kayonza</b>		5*
<b>Average</b>		27.3

Table 22:

**Indicator:** Percentage of children age 0-23 months whose births were attended by skilled health personnel

	BASELINE	MID-TERM
<b>Target</b>		
<b>Decision Rule</b>		
<b>Rounded Average</b>		<b>50</b>
<b>Decision Rule</b>		<b>7</b>
<b>Bwongyera</b>		10
<b>Ihunga</b>		6*
<b>Itojo</b>		11
<b>Nyakyera</b>		7
<b>Ruhama</b>		9
<b>Rugarama</b>		11
<b>Kayonza</b>		8
<b>Average</b>		46.6

Table 23:

**Indicator:** Percentage of infants age 6-9 months receiving breast milk and complementary foods

	BASELINE	MID-TERM
<b>Target</b>		<b>95</b>
<b>Decision Rule</b>		<b>16</b>
<b>Rounded Average</b>	<b>90</b>	<b>100</b>
<b>Decision Rule</b>	<b>15</b>	<b>16</b>
Bwongyera		19 <sup>10</sup>
Ihunga		17
Itojo		17
Nyakyera		19
Ruhama		19
Rugarama		18
Kayonza		19
<b>Average</b>	88.2	96.2

Table 24:

**Indicator:** Percentage of mothers who know at least two signs of childhood illness that indicate the need for treatment

	BASELINE	MID-TERM
<b>Target</b>		<b>85</b>
<b>Decision Rule</b>		<b>14</b>
<b>Rounded Average</b>	<b>80</b>	<b>95</b>
<b>Decision Rule</b>	<b>13</b>	<b>16</b>
Bwongyera		19
Ihunga		17
Itojo		18
Nyakyera		18
Ruhama		18
Rugarama		18
Kayonza		17
<b>Average</b>	78.4	94.0

<sup>10</sup> Figures in this table have been scaled up to 19 for easy interpretation using the LQAS decision table

Table 25:

**Indicator:** Percentage of sick children age 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks

	<b>BASELINE</b>	<b>MID-TERM</b>
<b>Target</b>		<b>85</b>
<b>Decision Rule</b>		<b>14</b>
<b>Rounded Average</b>	<b>75</b>	<b>60</b>
<b>Decision Rule</b>	<b>12</b>	<b>9</b>
<b>Bwongyera</b>		19
<b>Ihunga</b>		6**
<b>Itojo</b>		19
<b>Nyakyera</b>		7**
<b>Ruhama</b>		11*
<b>Rugarama</b>		2**
<b>Kayonza</b>		11*
<b>Average</b>	72.7	57.9

Table 26:

**Indicator:** Percentage of mothers of children age 0-23 months who wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated

	<b>BASELINE</b>	<b>MID-TERM</b>
<b>Target</b>		<b>10</b>
<b>Decision Rule</b>		<b>N/A</b>
<b>Rounded Average</b>	<b>10</b>	<b>5</b>
<b>Decision Rule</b>	<b>N/A</b>	<b>N/A</b>
<b>Bwongyera</b>		0**
<b>Ihunga</b>		1*
<b>Itojo</b>		0**
<b>Nyakyera</b>		0**
<b>Ruhama</b>		0**
<b>Rugarama</b>		1*
<b>Kayonza</b>		0**
<b>Average</b>	6.2	1.5

## **APPENDIX III: LQAS DECISION TABLE**

## **APPENDIX II: MID-TERM EVALUATION QUESTIONNAIRE**