



Daffodil
International
University

Internship Report

On

Proto Type Testing and Application of “Emergency Nutrition Information System” on The Information of Malnourished children (5-59 month of age) in refugee camp, Ukhiya with UNICEF Bangladesh.

Supervised by

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Submitted By

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Date of Submission: 19-12-2019

LETTER OF TRANSMITTAL

12th December 2019

Dr. Md. Bellal Hossain
Professor & Head
Department of Nutrition and Food Engineering
Faculty of Allied Health Sciences
Daffodil International University
Subject: Submission of internship report.

Dear Sir,

I would like to take this opportunity to thank you for the advice and support you have given to this report. Without your help, it would be impossible to complete this report.

To prepare the report I collected what I believe to be most relevant information to make my report as scientific and reliable as possible. I have intensive my best effort to achieve the objectives of the report and hope that my endeavor will serve the purpose. The practical knowledge and experience gathered during report preparation will immeasurably help in my future professional life. I request you to excuse me for any mistake that may occur in the report despite of my best effort.

I would really appreciate if you enlighten me with your thoughts and views regarding the report. In addition, if you wish to enquire about an aspect of my report, I would gladly answer your queries.

Thank you again for your support and patience.

Yours Sincerely,
Md.Imran Mahmud
ID: 161-34-497

Letter of Authorization

12th December 2019

Dr. Md. Bellal Hossain
Professor & Head
Department of Nutrition and Food Engineering
Faculty of Allied Health Sciences
Daffodil International University

Subject: An announcement regarding the validity of the Internship Report.

Dear Sir,

This is my truthful declaration that the “**Internship Report**” I have prepared is not a copy of any Internship Report previously made by any other students.

I also express my forthright confirmation in support to the fact that the said Internship report has neither been used before to fulfill my other course related nor it will be submitted to any other person in future.

Yours Sincerely,
Md.Imran Mahmud
ID: 161-34-497

Approval Certification

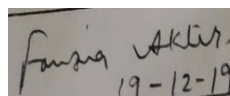
On the behalf of the university, this is to certify that **Md.Imran Mahmud**, bearing ID: **161-34-497**, Program B.Sc. in Nutrition & Food Engineering is a regular student, department of Nutrition & food Engineering, Faculty of Allied health Sciences, Daffodil International University. He has successfully completed his Internship program of one month in UNICEF Bangladesh, Coxs Bazar in Ukhiya Rohingya refugee Camp, **on the proto type test and application of Emergency Nutrition Information System on the information of malnourished children (5-59 month of age) in refugee camp, Ukhiya with UNICEF Bangladesh.**

Then he completed this report on Date 21 November under my direction. We aware that **Md.Imran Mahmud** completed his internship report by observing our teacher. In addition, I ensure that his report is a worth of fulfilling the partial requirements of NFE program.



Dr. Md. Bellal Hossain

Professor & Head
Department of Nutrition and Food Engineering
Faculty of Allied Health Sciences
Daffodil International University
Dhaka



Fouzia Akter

Assistant professor
Supervisor
Department of Nutrition Food Engineering
Faculty of Allied Health Sciences
Dhaka

Approval Certification

This is to certify that **Md.Imran Mahmud, ID-161-34-497**, Program B.Sc. in Nutrition & Food Engineering is a regular student department of Nutrition & food Engineering, Faculty Allied health Science Daffodil international University. He has successfully completed his Internship program of one month in UNICEF Bangladesh, Cox's Bazar in Ukhiya Rohingya refugee Camp, **on the proto type test and application of Emergency Nutrition Information System on the information of malnourished children (5-59 month of age) in refugee camp, Ukhiya with UNICEF Bangladesh** and completed this report on November 19, 2019. We are aware that **Md.Imran Mahmud** had completed his Internship by observing our Administering and Employee.

Muhammad Abu Bakr Siddique
Nutrition Officer (IM), Nutrition Sector,
UNICEF Bangladesh.

ACKNOWLEDGEMENT

All praises and gratitude to almighty, the most beneficent and the merciful who manages each and everything soundly and enables me to complete in this training.

I would like to thank and acknowledge rendered by ***Muhammad Abu Bakr Siddique*** , Nutrition Officer (IM), Nutrition Sector , UNICEF Bangladesh. I would like to thanks my honorable teacher Prof. ***Dr. Md. Bellal Hossain, Head of the Department of Nutrition and Food Engineering,*** and Ms. ***Fouzia Akter*** Assistant Professor Department **of Nutrition and Food Engineering, Faculty of Allied Health Sciences**, who had given me the opportunity to attend this training program. This program will help me to build my bright future carrier. It is great pleasure to express my great full thanks to ***Mr. Murshed Khan, Nutrition Officer, UNICEF, Bangladesh.***

My feelings during this training was great and I enjoyed it very much. This could only be possible for generous contribution of all UNICEF Bangladesh people. My achievement during this training will definitely help me in my professional field. Thanks to all employee of UNICEF Bangladesh for their friendly co-operation and Helping me during my training period.

Dedication:

By the grace of almighty Allah, Which kindness help me to done my project work properly. This project is dedicated to my father who see his dream to inside me. Also dedicated to my mother who always support me in every situation. I also dedicated to my supervisor who support me to the complete my project and dedicated to my dept. head who always helped me to complete this project.

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Emergency Nutrition Information System (ENIS)

Chapter 1

Summary:

Though all the organizations working in the Rohingya refugee camp are implementing CMAM program, the process differs organization to organization. It may ease their work, but it creates many limitations for the overall situation of the camp. The whole process is very time consuming. A beneficiary has to stay in the facility for long time. It creates a complex situation in the facility. To eliminate this situation a time saving system need to be developed, which can make the process more easier than before and make this less time consuming. This process is unable to identify double registration of a child. Because of the double count of the child, sometimes the result is not perfect. For the perfect result we need to identify the fake registration. It can be done by improving the existing system or a new system can be introduced that can easily remove those double counts. It will improve the quality of CMAM program. Some organizations in many countries developing updated system to make the CMAM program more accurate and easier. Existing system contains many limitations which should be eliminated. If the limitations can be removed the CMAM program will run smoothly. It will help to improve the emergency situation more quickly than before.

Introduction:

Emergency Nutrition Information System or ENIS is the digitalized version of running CMAM system. Success rate of running system record whichever has been implemented on the basis of CMAM at vulnerable area globally is up to mark according to the previous. But time passed by and nutrition expertise and specialists came to know that the paperwork data collection information (MUAC, Height, weight, z-score, appetite) about admission, follow up, treatment and discharge of malnourished child causes some inaccuracy at some cases. Due to time consumption in emergency situation and load of paper works sometimes follow up has given inaccurately and cured rate fall down at some percentages. Success rate can be limited by a number of factors, including lack of protocol adherence by health workers and inaccurate record keeping.

By the need of accuracy and effectiveness of Community based management of acute malnutrition in 2019 “UNICEF” initiated a Emergency nutrition online system proto type testing. The system has some purpose while it was testing. First to improve the quality of CMAM program delivery, as health workers are more likely to correctly follow the treatment protocol in online basis, assess a child’s nutritional and medical status more accurately, routinely medications and identify defaulters or non-responders more easily and to provide more accurate and timely data for remote area CMAM management and decision making.

Emergency Nutrition Information System was piloted in world’s largest Refugee camp, Bangladesh on the information of the forcibly displaced people of Myanmar.

Emergency Nutrition Information System has been developed in order to store all the information of nutritional status of acute malnourished child and using them.

Objective:

Emergency Nutrition Information System (ENIS) will technically replace paper booklets with digital records, and enables frontline workers and global stakeholders to make informed decisions with real-time data. "It is helpful to generate reports for the situation. Also, everyone involved in the CMAM project can access the online data.

The overall objective of the Health application was to improve CMAM treatment, reporting, monitoring and supply management for improved quality of care for children suffering from acute malnutrition. The app has a dual purpose. First to improve the quality of CMAM programme delivery, as health workers are more likely to correctly follow the treatment protocol, assess a child's nutritional and medical status more accurately, provide the correct number of ready-to-use therapeutic food (RUTF) sachets, routine medications and identify defaulters or non-responders;

and second to provide more accurate and timely data for listrict-level CMAM management and decision making.

Protocol of Outpatient Therapeutic Program Camp-3- Madhurchara:

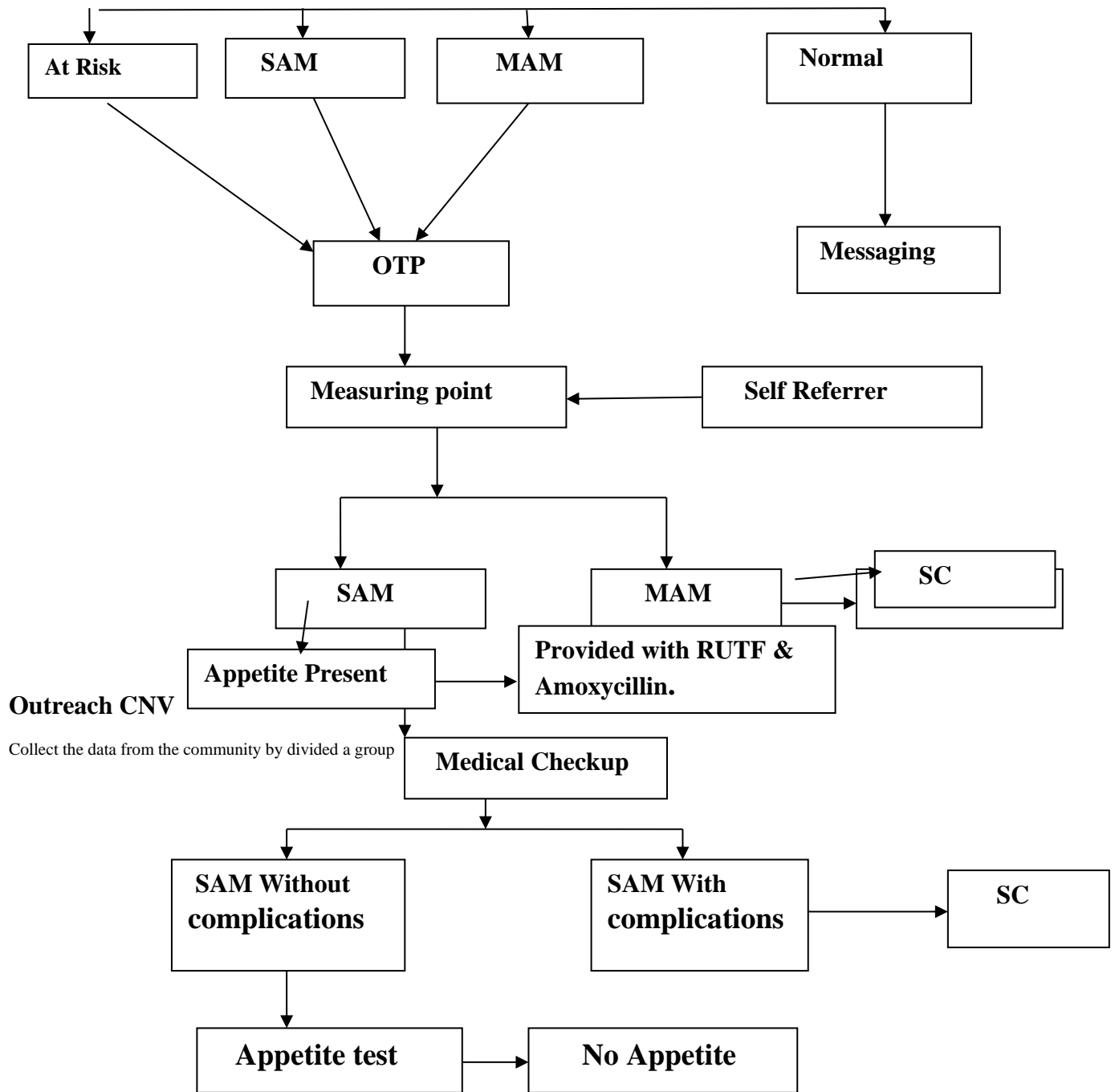
Chapter 2

I was working in taking by under five(<5) SAM children at camp-3 Madhuchara in the facility of outpatient therapeutic program. Then, I observe this protocol, they are maintaining:

Outpatient Therapeutic Program:

It brings the services for management of severe acute malnutrition (SAM) closer to the community by making services available at decentralized treatment points within the primary health care settings, through the use of ready-to-use therapeutic foods, community outreach and mobilization.

Outreach activities (Identification)



Each and every group cover a sub block in a day with a targeted follow up visit of Childs and also register new born child,0-5 month child in their register book.

Outreach CNV's measure the MUAC and check out Oedema of a child and Refer to the Facility (OTP) by a Referral slip.

Register, Reports and Checklist for CNV:

- Under 5 Screening Register.

Use to register Under 5 child and 0-5 month child in HH level. Also enter the follow up of registered child.

- Community Nutrition Home Visit form and checklist.

Use during the registration of a child and follow up into the Screening register in hose hold.

- ICYF Rapid Assessment Form.

Use for breast fed child.

- Referral slip.

Use for refer child to the Facility.

- Community Nutrition Screening Tally Sheet.

Use to count daily screened child of a block on the basis of MUAC \geq 12.5cm to <13.5cm, Yellow MUAC \geq 11.5cm to <12.5cm, Red MUAC<11.5cm, Child with Edema etc.

- Community Nutrition Screening Weekly Report.

Use to count weekly screened child of a block on the basis of MUAC \geq 12.5cm to <13.5cm, Yellow MUAC \geq 11.5cm to <12.5cm, Red MUAC<11.5cm, Child with Edema etc.

- Screening Report for All.

Use for daily, weekly and monthly reporting.

Identified SAM, Referred SAM, Identified MAM, Referred MAM, Identified At Risk, Referred At Risk, 0-5 month New Born listing.

- Screening Report-CNV/Supervisor.

It's a combine report for all CNV's individually Screened Child of a block on the basis of MUAC \geq 12.5cm to <13.5cm, Yellow MUAC \geq 11.5cm to <12.5cm, Red MUAC<11.5cm, Child with Edema etc.

Measuring Point:

In this point Measurer measure the Height, Weight, MUAC of a child and Calculate the Z Score. If any child's MUAC or Z Score is in the range of SAM then he/she

send the child to the medical check-up point. If the child is MAM then suggest transferring in TSFP.

- Tally Sheet on Anthropometric Measurement.

Use for count the number of child referred by CNV with referral slip, who arrived spontaneously, measured as a part of weekly follow-up, new SAM detected, new MAM detected.

- Measurement Register.

All the child's measurement is inputted into that register.

Medical Check-Up Point:

In this point the nurse check out all the medical history, physical examination, like Fever, Cough, Diarrhea, etc. If a child's medical check-up found out with complication that child is transferred to other TSFP but if the child has no medical complication that child is sent for appetite test. After appetite test if it is present, then that child is admitted into the Facility (OTP) but if no appetite then that child is transferred into other TSFP.

Reports and Formats use in Medical Check-Up:

- Treatment Card.

After admission of a child all the information is inputted into this card, like Registration information, Anthropometric information, Medical history, Physical Examination, Exit information etc. And it's also used for every follow up information.

- Transfer Slip.

If a child's health condition developed from SAM to MAM, then that child is transferred into other TSFP by using this slip.

- CMAM Report for OTP.

Daily, Weekly, and Monthly Reporting.

In this report include the number of daily, weekly and monthly New Enrollment, Transfer in, Transfer out and Discharge child calculation.

Register:

Registrar register all the admitted child into the register book and give a registration ID which is followed by the facility serial number and also provide a Beneficiary Card for a child. In the register book the cured information is included.

- Registration Book.

All the Childs registration information is included into this book.

- Beneficiary Card.

This card is provided to the child's guardian and here also the follow up of a child is written down.

RUTF Distribution:

The standard format for RUTF distribution by Child weight.

SAM Treatment: Outpatient Therapeutic Program

Camp-3-Madhurchara

Chapter: 3

Geographical Information:

Name of the Camp	03
Total Block (sub block)	B,C,D1/2,F
Coverage Area (sub block)	33
Total Household	3095
Opening Date of Centre	07.12.17

Demographic Information:

Category	Boy	Girl	Total
Total Population	6077	6811	12888
Total U5 Children	1550	1468	3018
Total Adolescent	643	735	1378
Pregnant Women			250
Lactating Women			217

Human Resource Information:

Types	Staff	Volunteer
Male	04	04

Female	04	02
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In care Beneficiary Information:

Category	Boy	Girls	Total
6-59 month children	24	27	51
Pregnant woman			31
Lactating woman			04
Total			292

Performance in Indicator:

Total New Admission
Total Re Admission
Total Discharge
Discharged As cured
Death Rate
Discharge At Defaulter
Transfer to SC
Medical Transfer
Average Weight Gain
Average Length Stay

OTP Beneficiary Card for children Age 6 to 59 months.

Information include in Beneficiary Card:

- 1- Identification of OTP Centre (Upazila Name, Camp Name, Facility ID)
- 2- Identification of Beneficiary (Child Name, Age, Mother name, Fathers Name, Household Number , Registration Number , Gender)
- 3- Routinely Medication On Admission

Medicine	History	Dose Given on Admission	Dosage (Single Dose)
Albendazole (Do not give if taken in the last 3 month or if transferred from OTP)	In last 3 months	Yes	<12 months (don't give)
	Yes	No	12-23 months (200mg)
	No		≥ 24 Month (400 mg)
Measles Vaccine	Yes	Yes	>9 months (Standard Dose)
	No	No	

Admission Information:

- Date
- New Admission
- Readmission after Being Default
- Return from Stabilization Centre (SC)
- Readmission After Recovery
- Transfer In from other TSFP

- Others (Specify)

Discharge Information:

- Date
- Discharge cured to BSFP
- Defaulter
- Death
- Transfer to TSFP
- Non- response
- Transfer out to other TSFP
- Others (Specify)

Some others information present in Beneficiary card with Admission and Follow up date.

Information of NO. Of RUTF sachets and Nutrition Education of mother/ caregiver has been included in beneficiary card.

In registered book there is no medication information of Albendazole, instead of registered book it presents in Beneficiary card.

Readmission after Recovery / Relapse:

After recovery of a SAM children, they move from OTP to TSFP. If a cured child somehow affected by Severe acute malnutrition within 84 days after recovery then they need to admit again in OTP.

Readmission after recovery or relapse option present in different place in online system.

Home Visit Checklist on the basis of Community based management of Acute Malnutrition which is used In TSFP and OTP:

If problems are identified such as weigh is not gaining then community health workers, community nutrition workers Assistant project officer or project officer or anyone responsible visits home and gives them health education or given which is listed below:

Feeding RUTF (Ready to use therapeutic food) or RUSF (Ready to use supplementary food)

- Is RUTF/RUSF/ Super cereal present at home?
- IF not, where is the RUTF/RUSF / Super cereal?
- Is the available RUTF/RUSF / Super cereal enough to last until the next OTP/ TSFP session?
- Is the RUTF/RUSF / Super cereal being shared?
- Yesterday did the malnourished child eat food other than RUTF/RUSF / Super cereal?
- Yesterday how often did the child receive breast milk? (For children <2 years)
- Yesterday how many times did the malnourished child receive RUTF/RUSF / Super cereal?
- Is safe water given to the child when eating RUTF/RUSF / Super cereal?
- Did someone help / encourage the malnourished child to eat?
- What does the caregiver do if the malnourished child does not want to eat?

Complementary Feeding (IYCF):

- Yesterday, how often did the child receive breast milk? (If child <2 years)
- Yesterday, how many times did the child receive family food?

Caring:

- Are both parents alive and healthy?
- Who cares for the malnourished child during the day?
- Is the malnourished child clean?

Health and Hygiene:

- Is safe water available?
- What is the household's main source of water?
- Is there soap available in the house?
- Do the caregiver and child wash hands and face before the child is fed?
- Is food covered and free from flies?
- What action does the caregiver taken when the child has diarrhea?

Food Security:

- Does the household currently have food sufficient?

- Main source of family income

Mother knows the date or day of next outpatient session.

Community Nutrition Volunteers Home visit Request Form
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Reason for home visit	Absent	default	Follow up
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Child registration number	OTP ID:
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Childs name:		Date of birth	Childs age (Month)	
Sex :	Boy	Girl	Mother or caregivers Name:	
Fathers Name		Majhi		
Household Number.	Block No.	Camp.	Union	Upazila
Findings		Action		
Defaulted		Referred		
Died		Counselled		
Others (Specify)		Others (Specify)		

Date of visit:	Community Nutrition workers name:
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Malnutrition prevention and treatment programme Daily Statistics Report has to maintain in OTP where program partner is WFP (World Food Program) and implementing partner is ACF (Action against Hunger).

Here some Indicator is used with number:

- New Admission (MUAC <11.5 cm)
- New Admission (WHZ scores >-3 SD)
- Readmission after being default
- Readmission after Recovery
- Transfer in from other TSFP
- Return from MAM treatment
- Total admission during this period
- Discharge Cured
- Defaulter
- Death
- Non Response (Non cured)
- Transfer to SAM treatment
- Transfer out to other TSFP
- Others

Percentage of cured rate, Non response rate, Defaulter rate, Average weight gain, Average length of stay information included in this daily report.

Food commodities distributed to children:

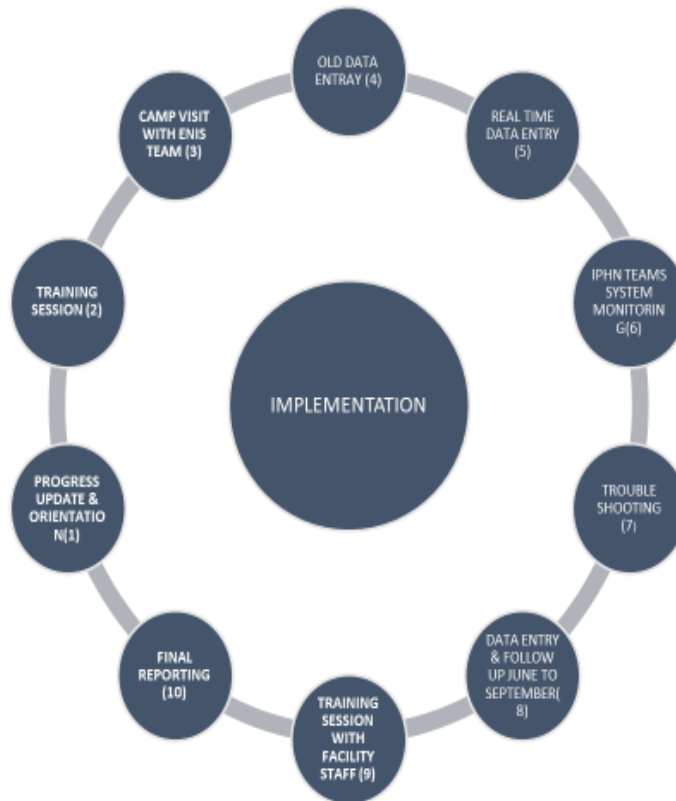
- 6-23 months children number
- 24-59 months children number
- RUTF number
- Number of children screening information is also included in Daily report. In online information system we can develop an option in this category.

ENIS prototype testing (Implementation)

Chapter 4

Implementation:

This prototype testing system initially implement on camp-3 & camp 18. Camp-3 (ACF) consisting 3 facility, a BSFP, a TSFP & an OTP. Camp-18 consisting 3 facility, a BSFP, a TSFP & a OTP. Save the children (SCI) having 2 facility BSFP & TSFP and SARPV having 1 OTP facility. Total 6 facility fixed for implementation of the ENIS prototype testing. Each facility having a responsible Emergency Data Officer (EDO) from Unicef Bangladesh.



Implementation cycle

- **Progress update & orientation (1):** Prototype testing of ENIS with 6 emergency data officer, nutrition sector, sectors, IOM and ENIS about progress of the system and basic orientation of the system and its objectives.
- **Training session (2):** Trained up with emergency nutrition online system. How to input data, how to collect data from camp based registration book and other forms. Trained up depth knowledge about SAM, MAM & facility based management and details knowledge about existing paper based system.
- **Camp visit with ENIS team (3):** Camp 3 and camp 18 visited by 6 emergency data officer and ENIS team members. Distribution of emergency data officer designated facility, each having a facility to perform. Introducing

with facility staffs and given a brief discussion about ENIS and how a data officer work with them.

- **Old data entry (4):** Entry the august months new admission data of the child with follow up, collecting that data from new admission register book.
- **Real time data entry (5):** After completing august months data then starting September months real time data entry from new admission register book. Discuss with facility staff about existing system and how that system run, that's problems, benefits and also their reporting system.
- **Iphn teams system monitoring (6):** Bangladesh govt. Institute of public health & nutrition (IPHN) team came to cox's bazar to visit camp based emergency nutrition information system. They were visited camp 3 & camp 18 and discuss about ENIS with how to input data on online system.
- **Trouble shooting (7):** Identifying initial problem discuss it with ENIS team & solved those problem. ENIS team also used rass berry pie storage server for testing that working or not. Because sometimes there were networking problem in different remote areas.
- **Data entry & follow up june to september(8):** After that emergency data officers start to entry data about June ,July and also current months data with follow up .That times identifying different types of problems and discussed with ENIS developer team and suggested to them to solve those issues.
- **Training session with facility staff (9):** Camp 3 and 18s supervisors, registrar, measurer were trained up about ENIS online system by 6 emergency data officers in cox bazar, unicef field office. That they knew about practical demonstration about ENIS, how to input data, how to register a child and how to follow up .After that emergency data officers were conducting an analytical

questionnaire session between existing system and ENIS system. That session focused various issues like timing problems, storage problems about existing system and sophisticated side about ENIS system.

- **Final reporting (10):** After completing June to September data with follow up, emergency data officers prepared a final reporting about existing system, ENIS system and analytical comparison of both systems.

First week of “Activities on camp and Data input information”

Chapter: 5

Date: 2-9-2019

Activities: After meeting the emergency nutrition team, then we went to camp 3. At that time, I was introduced to the Facility in charge, project officer and supervisor by means of the emergency nutrition team. Then I went to the OTP center and had a conversation with the registrar. Then I told the registrar about the nutrition sector web-based working method. After that, I wanted to register children of August from the registrar. Then I inputted the August month data in the nutrition emergency system software. Almost 20 data were inputted on the first day because the network problem was poor in the Rohingya camp at camp 3. At the end of the day I was faced with some problem during inputting data, that's why I came back to the UNICEF office and attended a meeting with Manish, who is the software developing engineer, Abu Bakr Siddique, who is the leader of the emergency nutrition team, and other team members of the emergency nutrition team. At that moment I shared my problem and idea, then I put down

in note pad,next day the problem was solved.After meeting we went to hotel and that night I inputted the all august month data with flow up.

Date: 3-9-2019

Activities: On that day I collected the OTP treatment card and child registered paper of July.Then nutrition emergency team went my facility and told now I inputted the real time data.After that in that day,two child was registered and some child was come for follow up.then I registered the real time data and intered into the nutrition emergency system software.After a few hour I was faced some problem in software system with networking system.After that,we come back UNICEF office according to first day and solved the problem with meeting and was go back to hotel.

Date: 4-9-2019

Activities: In that day,when I was working in the data input,then all on a sudden,some IPH officer was entered the camp 3 at OTP Center from Dhaka.They asked me what are the advantages of Nutrition Emergency system software system and wanted to know the difference between the manual and Online web system.then I answered them and they understand everything and some documents was captured After that they left the camp 3 at OTP center.

Date: 5-9-2019

Activities: On that day,One child was registered here.Then I inputted one child data in online.when second child data was inputted then I was faced the ntwork problem again.At that time I was captured the list of the child registered of july month ,for this reason registered data from hotel.At that time in camp 3 at OTP center.I asked some question from OTP project officer and registrar how to measure MUAC,Z

score and how to justify the nutritional status. And they answered my question.and I was note down.

Data Input Information: I have completed the August month data,two third completed the july month data and completing real time data as far as possible.

Benefits, Challenges , Problems ,Initial solution

Chapter 6

3.1 Benefits:

We know from prior report from different countries, in Yemen high defaulter rates were revealed and resulted in the management team adapting their program delivery model. In Asia, a large number of defaulters were revealed due to a supply chain break.

Added value of the ENIS-

- Data are easy to manage and share
- Reduces reporting time compared to Excel
- Error proof as false data can't be entered
- Highlights missing data, can be used to enforce better reporting
- Compliance reports improve timeliness of reporting
- Facilitates trend monitoring to feed into donor reports/stock checks
- Easy to extract indicators for donor reporting
- Able to verify/compare with national reporting system to do a data quality assessment and inform monthly data discussions with cluster
- Graphs highlight problems assisting management
- Support from head office is easier as programme details can easily be accessed
- Good information source
- Encouraged monthly instead of quarterly HQ reporting and increasing transparency
- Remote supervision and technical support is easier
- Transparent - easier to trace back results to original sites

3.2 Identified problems and solving of ENIS system:

The temperature was not in decimal number	Solved
After inputting the Albendazol and Measles data the page got broken down	Solved
After entering the discharged criteria the page got broken down	Solved
Firstly the whole system was in a single web page, but it was needed to be splitted in different steps	Solved
When Readmission after non recovery was entered the page got broke down.	Solved

3.3 Challenges can be faced in future after implementation:

- The staffs should be monitored properly after developing any option of the system.
- Very few facility personnel can't feel the system is friendly to them, they need proper training on the system.
- The system can results some bugs and the technical partners should provide ongoing support for troubleshooting.
- The system can be impact as difficult for the facilitator, it should be more user friendly.
- Delays in sorting software and programming issues can be negative impacts on users.
- In future new components can be added into the system for the purpose of development and have to conduct an workshop training on the system.
- Lengthy time take can be a challenge for the implementation of the ENIS.
- Unexpected cost, lack of frameworks can affect the implementation of ENIS.
- Regular user observation should be undertaken and project staff should be monitored

3.4 Overall Technological Changes Needed:

1. All "Name Fields" should be in Name Case. When we enter first name, the first letter of middle or last name should be in Capital Letter.

2. When the anthropometric measurement is completed, the option SAM/MAM should be selected automatically to reduce hassle.
3. On the time of selecting a child as SAM or MAM, the options should be reduced to about only for the selected condition (either SAM or MAM), something like Facility Based Structured Form. This way, risk of making mistakes of data will be reduced. As the facility In-charge said, facility personnel who will enter these data, come from non-technical background in most cases. So, less option will be easier for them.
4. There needs a “Others” option on “Discharge Criteria” and when this will be selected, there will be created a “Blank Text Field” for free-writing.
5. The WHZ Z-score should be selected automatically based on measured Height and Weight instead of entering manually.
6. On the “Albendazole” part, it should be selected automatically based on age, whether it’s 200mg or 400mg. And the option needs to be like “Yes/No” like the option of “Measles”.
7. As the facility In-charge suggested, When a child is being discharged, “Anthropometric Measurement During Discharge” portion should be calculated automatically from previously entered data- among them, “Discharge weight” will be drawn from the running day Entered Weight and

others data (LW, Durations, Gain of Weight) will be drawn from previous database.

8. The next visit date (Planned Date on book by now) should be entered automatically based on admission and follow up dates. (For first follow up, it will be based on admission date and afterwards, it will be calculated based on previous follow up date).
9. If a child become defaulter, a red light or any indicator on his/her name will be helpful.

Recommendation on changes and future enhancement to the system with priorities:

- Weight gain could be calculated automatically by the admission time weight gain and the last follow up weight gain or discharge weight gain, length of stay at TSFE, BSFP and OTP of a children could be calculated automatically by the date of admission and the last date of follow up or discharge.
- An option need to be created where Average weight gain, Average cure rate, Average length of stay will be found for month in different program at different camp.
- Follow up will have to improve by adding a delete option. Cause sometimes follow up of a children repeats unintentionally and we have faced a lot of trouble to register a child again.

- Continuously 4 week visit missed by child counts as a defaulter. So if a child missed continuous 4 week visit at TSFP the system has to automatically mark the child as a defaulter.
- In case of registration when we write a Childs name, Fathers name and Mothers name an option need to include in system where it shows any child whose name is same with the same parents' name. So that if any beneficiary tries to take benefit from BSFP and TSFP at a same time, they will be caught by the register.
- Auto Z score calculation system would be another new convenient option if it's possible to include in online system. Then there might be no need to compare any reference card which will make the work more time saving.
- Devices by which online registration system will be implemented should be restricted from personal use. Because battery issue, security issue is also a matter of concern.
- System must have to automatically identify the false data and it won't be entered.
- System needs to Highlight the missing data, which can be used to enforce better reporting

Key Findings

- Same registration number for two child will create problem in integrated camp working system in future.
 - When I input data of follow up, sometimes one registration number shows 2 or 3 different child. So if it's possible to add camp number after a same registration number for 2 child, then it will not create any confusion. Though child name is different, even so it will create confusion among health workers in future because of the loaded information.

ADVANTANGES & DISADVANTANGES OF EXISTING SYSTEM

Chapter 7

3.1 Advantages of Existing system:

- ID band is helpful for find out the child whose beneficiary card is lost.
- Referral slip is helpful for kept MUAC, Height, weight and z score data.
- Individual food distribution book is helpful for food distribution.

3.2 Disadvantages of Existing system:

- Huge amount of time need to input data in different places.

- Risk of data storage. If any pages or form spoil for any reason there is no back up for the same information of child.
- Load of paperwork sometimes causes unintentional error.
- No option for editing. Registrars have to over write which makes the register book and treatment card unclear.
- In OTP sometimes nurse leader skip the information of temperature and respiration rate in treatment card and lack of supervision nobody get to know the lacking.
- The changes of household number is happening but most of the registrar do not changes the HH number of their registrar book.
- If a child registered in two different camp, it is a big trouble to find out the fake child and its very time lengthy.
- In OTP facilities, finding out the OTP treatment Card is time lengthy. Because they are stored at another place.

Conclusion:

Chapter 8

Conclusion:

Though all the organizations working in the Rohingya refugee camp are implementing CMAM program, the process differs organization to organization. It may ease their work, but it creates many limitations for the overall situation of the camp. To improve overall situation of the Rohingya camp co-ordination among the

organizations will be needed. There is lack of understanding between different facilities due to the use of different types of tools.

It is so difficult for the nutrition sector to combine different types of data collected from the different processes used by different organizations. A uniform system can reduce the workload and will provide an overall view of the camp situation.

The reporting systems for different staffs are very complex. Unintentional errors occurred frequently. To minimize these errors, a more sophisticated system is needed, which can provide report on the existing data automatically.

The whole process is very time consuming. A beneficiary has to stay in the facility for long time. It creates a complex situation in the facility. To eliminate this situation a time saving system need to be developed, which can make the process more easier than before and make this less time consuming.

This process is unable to identify double registration of a child. Because of the double count of the child, sometimes the result is not perfect. For the perfect result we need to identify the fake registration. It can be done by improving the existing system or a new system can be introduced that can easily remove those double counts. It will improve the quality of CMAM program.

Child tracking is so difficult in this system. Child tracking is very important in CMAM program for removing double counting. Sometimes a child is found admitted in several facilities. But this paper book system cannot identify the child.

Some organizations in many countries developing updated system to make the CMAM program more accurate and easier. Existing system contains many limitations which should be eliminated. If the limitations can be removed the CMAM program will run smoothly. It will help to improve the emergency situation more quickly than before.

