



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

LETTER OF TRANSMITTAL

12th November 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,

Sohaeb Nabi Shetu

ID: 161-34-516

Letter of Authorization

12th November 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.

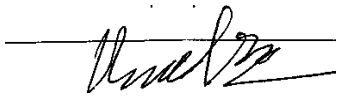
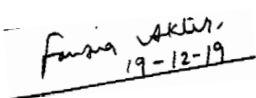
Yours Sincerely,

Sohaeb Nabi Shetu

ID: 161-34-516

Approval Certification

On the behalf of the university, this is to certify that **Sohaeb Nabi Shetu**, bearing ID: **161-34-516**, 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 under my direction. We aware that **Sohaeb Nabi Shetu** 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 Department of Nutrition Food Engineering Faculty of Allied Health Sciences Daffodil International University, Dhaka
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Approval Certification

This is to certify that **Md. Sohaeb Nabi Shetu**, ID-161-34-516, 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 1 month in UNICEF Bangladesh, Cox's Bazar Ukhiya Rohingya refugee Camp, on proto type test of “Emergency Nutrition Information Sysytem” in refugee camp, Ukhiya with UNICEF Bangladesh and completed this report on 1st November 2019. We are aware that **Md. Sohaeb Nabi Shetu** had completed his Internship by observing our Administering and Employee and by implementing the proto type test.

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.

Summary

By the need of accuracy and effectiveness of Community based management of acute malnutrition in 2019 “UNICEF” initiated an 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.

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Chapter-1

1.1 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.

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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

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1.2 Monthly Activity Plan of Internship program

Emergency Nutrition Information System

Name: Sohaeb Nabi Shetu

Month: September, 2019

Date	Location	Activity	Remarks
1	Cox's Bazar	On the very first date we had a meeting and discussion session at UNICEF field office, Cox's Bazar. The Discussion session started from 9:00 am. In that session we came to there is an online information system where we can put all data of Acute malnourished children what we r getting now from The Rohingya refugee camp. So in that meeting the emergency nutrition system team has given me a responsibility to register data of TSFP section under camp 3. From that meeting I've learned about the system and how it works. Moreover from the whole discussion session many of the lacking found out by the specialist and	

Date	Location	Activity	Remarks
		most of the advantages of the system appeared in the meantime. At last we had finished the meeting at 5:00pm.	
2	ACF TSFP, Camp 3	After meeting with the leaders who implement the emergency nutrition system, we went into the camp 3 and had an Introducing part with the in charge of facilities and Health workers who've involved with nutritional progressing work at camp 3. We the nutrition data officer of camp 3 checked out the network with highest efficiency for the maximum data input. We adjusted with the environment and inputted a few data.	
3	ACF TSFP, Camp 3	Kept eye on the measuring procedure of MUAC, weight and height and made a discussion with the project in charge about the MAM children and the admission and Discharge criteria. In the meantime inputted data as much as possible. Some of the problem came out from the monthly report of TSFP registered book. Finally Discussed that specific problem with project in charge and she cooperated me.	
4	ACF TSFP, Camp 3	Data input was going well. That's why most of the time I had inputted data. After one hour IPHN team arrived at camp 3 and the came to TSFP section and asked about the system and how the system works. I told about system, How it works and gave them an idea and relativity between the monthly report of TSFP registered book and the online emergency nutrition system. Before coming back from the camp I went into the OTP	

Date	Location	Activity	Remarks
		section and had a conversation with ACF workers about the OTP section.	
5	ACF TSFP, Camp 3	Worked with Intern-3 (Imtiaz Raive) in order to input data fast in a short time. We did a team work at camp 3. Then learned something new about BSFP from intern-3.	
6		Off day	
7		Off day	
8	ACF TSFP, Camp 3	Inputted real time data as much as possible. Had to wait now and then because the registered was monitoring everything one by one and submitted data on the monthly report then I could input that data into online emergency nutrition system. So, within the work hour I had completed my task at my best.	
9	ACF TSFP, Camp 3	Arrived at the camp after 10am. Then I made sure any follow up were required or not for the befitted children in July and August month. After that I inputted the real time data till 3pm and came back from the camp.	

Chapter-2

2.1 Camp Conventional system

BSFP : Blanket Supplementary Feeding Program. It is aimed at treating moderately malnourished children age 6-59 month through prevent acute malnutrition. This program is set so as to provide a food supplement to all children under 5 years , pregnant and lactating women .

2.2 Program Implementation in BSFP

Waiting Space: A BSFP facility conducting 250-300 children per day on average. So as usual there having large gathering of children's & their mothers. BSFP facility having waiting space for every child & their mother. sometimes waiting space conducting health & hygiene session and many more activities like cartoon screening session for children.

Screening: when a child come in BSFP Screening session occurs that consist of MUAC, Weight, Height /Length. A measurer measures the MUAC, Weight, Height/Length of a children. Then a register registered that child information with screening result. By screening identify a child's health status like SAM,MAM . BSFP Conducts only MAM and normal children under 59 month age .

Registration: A registrar keeping information about new registered child and others reporting's.

Nutrition Education & Health Session:A nutrition educator conduct this session .Give brief discussion about basic health and hygiene.

Food Distribution: After completing all those steps finally a children get 6 kg WSB++ super cereal for 28 days.

Help Desk: A BSFP Facility consisting a Help desk that provide any kind of information about BSFP facility.

Registration & reporting formats: A registrar use a register book for child registration that given form nutrition sector and also kept various reporting and registration format. In below in listed that's name:

BSFP Under 5 registration book	Return form MAM treatment
Referred slip	Defaulter Book
Cured child form PLW	Discharge Book age<59 month
Readmission after being default	Daily report on BSFP
Transfer in form other BSFP	Monthly report on BSFP
Transfer out other BSFP	Others (fake, doubling)
Transfer to SAM treatment	

Description of the registered and reporting forms are listed below:

BSFP Under 5 registration book: That book consisting new admission information of a child.
Referred slip: That slips consisting information about a outreach screening & referrer information on a certain day visit.
Cured child form PLW: That book consisting information about cured child form PLW.
Readmission after being default: That book consisting information about defaulter child who having new admission with having complications.

Transfer in form other BSFP: That book consisting information about transfer child to other BSFP facility.
Transfer out other BSFP: That book consisting information about that child who transfer out form other BSFP.
Transfer to SAM treatment: That book consisting information about that child who transfer to OTP for SAM treatment.
Return form MAM treatment: That book consisting information about that child who return to BSFP facility after discharge form MAM treatment.
Defaulter Book: That book consisting information about that child who having absent form 2 consecutive visits.
Discharge Book age<59 month: That book consisting information about that child who having complete 5-year age and finally discharge form the facility.
Daily report on BSFP: That book consisting information about daily screening, registration, food distribution.
Monthly report on BSFP: That book consisting information about a month's screening, registration, food distribution & cure rate, improve rate information.
Others (fake, doubling): That book consisting information about fake id registration & doubling beneficiary information.

2.3 Timing frame out of a child in a BSFP facility

Designation	Timing (on average)
Measurer	7 mins
Registrar	8 mins
New admission	15 mins
Follow up	8-10mins
Refer	10 mins
Daily reporting	10 mins
Weekly reporting	30 mins
Monthly reporting	1 hours

Chapter-3

Implementing process of TSFP (Target Supplementary Feeding Program):

In TSFP, outreach activities are done by Community Nutrition Promoters (CNP). They are supervised and guided by Facility Supervisor. When children come to TSFP (whether self-referred or referred by a CNP), they need to wait at waiting area. Then they are called one by one and taken for anthropometric measurement at Measuring Point. After measurement, the child is sent to Registrar for registration based on their anthropometric data. After registration, the caregiver of the child is sent to Nutrition Education Point for session. Then the children get their food at Food Distribution Point.

3.1 MAM Treatment: Targeted Supplementary Feeding Program

Camp-3-Madhurchara

Geographical Information:

Name of the Camp	03
Total Block (sub block)	05
Coverage Area (sub block)	57
Total Household	5484
Opening Date of Centre	07.12.17

Demographic Information:

Category	Boy	Girl	Total
Total Population	13299	14041	27340
Total U5 Children	3181	2549	6632
Total Adolescent	675	1025	1700
Pregnant Women			670
Lactating Women			572

Human Resource Information:

Types	Staff	Volunteer
Male	02	02
Female	00	03

In care Beneficiary Information:

Category	Boy	Girls	Total
6-59 month children	118	119	257
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

3.2 TSFP Beneficiary Card for children Age 6 to 59 months:

Information include in Beneficiary Card:

Identification of TSFP Centre (Upazila Name, Camp Name, Facility ID)

Identification of Beneficiary (Child Name, Age, Mother name, Fathers Name, Household Number, Registration Number , Gender)

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 No	Yes No	<12 months (don't give) 12-23 months (200mg) ≥ 2 Year (400 mg)
Measles Vaccine	Yes No	Yes No	>9 months (Standard Dose)

3.3 Admission Information:

Date New Admission Readmission after Being Default	Discharge Information Date Discharge cured to BSFP
--	--

Return from OTP Readmission After Recovery Transfer In from other TSFP Transfer From BSFP Others (Specify)	Defaulter Death Transfer to OTP Non- response Transfer out to other TSFP Others (Specify)
--	---

Information related to Admission

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

Information of NO. Of RUSF 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 MAM children, they move from TSFP to BSFP. If a cured child somehow affected by Moderate acute malnutrition within 60 days after recovery then they need to admit again in TSFP.

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

3.4 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:

<p>Feeding RUTF (Ready to use therapeutic food) or RUSF (Ready to use supplementary food)</p> <p>Is RUTF/RUSF/ Super cereal present at home?</p> <p>IF not, where is the RUTF/RUSF / Super cereal?</p> <p>Is the available RUTF/RUSF / Super cereal enough to last until the next OTP/ TSFP session?</p> <p>Is the RUTF/RUSF / Super cereal being shared?</p> <p>Yesterday did the malnourished child eat food other than RUTF/RUSF / Super cereal?</p> <p>Yesterday how often did the child receive breast milk? (For children <2 years)</p> <p>Yesterday how many times did the malnourished child receive RUTF/RUSF / Super cereal?</p> <p>Is safe water given to the child when eating RUTF/RUSF / Super cereal?</p> <p>Did someone help / encourage the malnourished child to eat?</p> <p>What does the caregiver do if the malnourished child does not want to eat?</p>
<p>Complementary Feeding (IYCF)</p> <p>Yesterday, how often did the child receive breast milk? (If child <2 years)</p> <p>Yesterday, how many times did the child receive family food?</p>
<p>Caring</p> <p>Are both parents alive and healthy?</p> <p>Who cares for the malnourished child during the day?</p> <p>Is the malnourished child clean?</p>
<p>Health and Hygiene</p> <p>Is safe water available?</p> <p>What is the household's main source of water?</p> <p>Is there soap available in the house?</p> <p>Do the caregiver and child wash hands and face before the child is fed?</p> <p>Is food covered and free from flies?</p> <p>What action does the caregiver taken when the child has diarrhea?</p>
<p>Food Security</p> <p>Does the household currently have food sufficient?</p> <p>Main source of family income</p>

Mother knows the date or day of next outpatient session.

Community nutrition Volunteers Home visit Request Form

Community Nutrition Volunteers Home visit Request Form

Reason for home visit	Absent	default	Follow up
-----------------------	--------	---------	-----------

Child registration number	TSFP 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:	

Malnutrition prevention and treatment programme Daily Statistics Report has to maintain in TSFP 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 to 12.4 cm)
New Admission (WHZ scores \geq -3SD to $<$ -2SD)
Readmission after being default
Readmission after Recovery
Transfer in from other TSFP
Return from SAM 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

RUSF number

Number of children screening information is also included in Daily report. In online information system we can develop an option in this category.

Chapter-4

Outreach CNV

Collect the data from the community by divided a group.

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 HH.

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 $\geq 12.5\text{cm}$ to $<13.5\text{cm}$, Yellow MUAC $\geq 11.5\text{cm}$ to $<12.5\text{cm}$, Red MUAC $<11.5\text{cm}$, Child with Edema etc.

Community Nutrition Screening Weekly Report.

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

Chapter-5

ENIS prototype testing (Implementation)

As the Child malnutrition is known as severe global health challenge, So globally different organizations like UNICEF, WHO, IMC, Save The Children and many more organizations have been trying to develop the management of acute malnutrition and CMAM model has been endorsed by WHO and UNICEF. CMAM was essentially planned for the emergency context as to replace the traditional rehabilitation system of malnourished children. On the basis of CMAM registered book, checklists, beneficiary card, reports made by organizations who are concerned with child malnutrition and whose major priority is involved with the reduction of mortality and morbidity of acute malnutrition.

Written information of TSFP, BSFP, and OTP registered book, TSFP and BSFP beneficiary card about under 5 children nutritional status based on Community management of severe acute malnutrition in vulnerable areas have been ongoing at Rohingya Refugee Camp from the beginning. Though modification of this paper work has been made step by step, by the help of expertise and nutrition specialists at different time.

A Short Discussion about Emergency Nutrition System

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.

5.1 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 spitted in different steps.	Solved
When Readmission after non recovery was entered the page got broke down.	Solved
	Solved

5.2 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 govts 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 sophisticate 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 compression of both systems.

Chapter-6

Analytical Checklist on ENIS

Camp-....., Facility-.....,

Employee Name-....., Designation of employee-
.....

Taken by-....., Date-.....

#How much are you satisfied about the existing system? Rate it to 10.

#How much time do you need to complete your paperwork for a child?

-New admission minute

-Follow up minute

-Refer minute

#How much time do you need to find out the information of a child when they come for follow up?

#How do you sort out the projection list of individuals follow up date?

--

#How many register do you fill up? Names-

#How many formats/forms do you fill up for Recording and/or Reporting?

#How much time do you need to complete report?

Daily-....., Weekly-....., Monthly-.....

#Unintentional errors of making report

Often/ Sometimes/ Never

#What specific changes in each of the formats will help you to collect data?

#Which registration card do you use mostly to create the registration ID?

FCN/ HHN/ MNR/ Others (Please menti

#How do you Refer children from one facility to other facility?

#How do you track them whether they are already admitted in any facility or not?

Your Facility	Other Facility

#Which indicators and/or process you are using to eradicate Registration ID

--

#If any Beneficiary card lost, how do you track down that registered ID? [Time

--

#By which criteria you find out the fake registered ID?

--

-How do you solve it?

--

#Do you keep absent/ Default Registered child information separately?

-Yes/ No

#After anthropometric measurement of a child how the measurer passes data to registrar?

#Maximum follow up visit number of a Child in a facility-

#What are the Benefits of Existing system?

#What are the Challenges of Existing system?

ENIS related questions:

#Your opinion about the ENIS-

Good/ Average/ Excellent/ Not bad

#Do you think ENIS will reduce the workload?

Yes/ No

#Will the system save your overall time of a child registration?

Yes/ No

#Is the processing step of ENIS easier than previous system work?

Yes/ No

#Will the system help in decision making and CMAM management?

Yes/ No

#How do you ensure that your CMAM staff are using the ENIS properly? (For

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#Do you think ENIS will improve the quality of CMAM program delivery? Why?

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Comparative analysis:

#Which system will be more user friendly?

Existing/ ENIS

#Which system do you think will make you more efficient? Why?

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#Do you think the report produced by ENIS will be more sophisticated than the existing system?

Yes/ No

#Do you the mistakes acquired from the existing system due to the vast paper work will be eliminated in the new system?

Yes/ No

#Which system do you prefer to work with?

Existing/ ENIS

Chapter-7

Benefits, Challenges, Problems, Initial solution

7.1 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

7.2 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

7.3 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

7.4 Overall Technological Changes Needed:

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. When the anthropometric measurement is completed, the option SAM/MAM should be selected automatically to reduce hassle.

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.

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.

The WHZ Z-score should be selected automatically based on measured Height and Weight instead of entering manually.

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”.

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.

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). If a child become defaulter, a red light or any indicator on his/her name will be helpful.

7.5 Comparison based on checklist:

We have conducted a training and a practice session for the supervisor and register of the selected camp where we have worked. We gave them a clear concept about the ENIS and how it will enhance the flexibility of working process in an emergency context. After that session we made a checklist in order to make a comparison between the existing system and ENIS and to have an idea about which system would be more flexible.

Based on that checklist we came to know the following information:

Out of 10 health workers 7 of them marked ENIS as an excellent system and rest of them marked as good. They said that the ENIS is way easier, flexible, different and useful than the existing system. All of them think the system will enhance the accuracy of information and will reduce their workload. They strongly agreed that the system will save their valuable time and they can ensure more sophisticated data.

Every facility in charge have given a strong positive opinion about ENIS and they think it will help in decision making and will improve overall CMAM management in Rohingya Refugee camp because in existing system due to lack of supervision sometimes data skip is done by the registrar but in ENIS it will not possible to ignore a single data for a child registration. In existing system responsible person who checked out monthly report cannot ensure if all the information is right or not from any remote area but in ENIS remote supervision is possible.

They think ENIS will be more user friendly and it will make them more efficient. Unintentional error producing possibility in case of report making due to vast paper work will be reduced at a great extent.

All of them want to work with the new system not because it has come with technology but it is easier and user friendly to implement and to acquire information of a child in an emergency context.

Chapter-8

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