UTILIZATION OF CHILD MALNOURISHMENT TREATMENT CENTERS (CMTCS) IN DISTRICT AMRELI, GUJARAT

Dissertation
At
I.C.D.S. Society (Department of Women and Child Development, Gujarat)

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Under the guidance of
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MBA Hospital & Health Management
2013–15

Institute of Health Management Research
Jaipur
2015

INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
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IIHMR UNIVERSITY

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This is to certify that Dr. Vidhi Tomar, student of MBA Hospital and Health Management from IIHMR University, Jaipur has undergone internship training at Department of Women and Child Development, Gujarat from March 10, 2015 to May 13, 2015.

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

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And has successfully completed her project on

Utilization of CMTC services in District Amreli
A cross-sectional, descriptive study-Facility and Beneficiary Perspective

She came across as a committed, sincere and diligent person who has a

strong drive and zeal for learning.

We wish her all the best for future.

Program Officer
ICDS Society
District Amreli- Gujarat

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Utilization of Child Malnourishment Treatment Centers (CMTCs) in District Amreli, Gujarat** submitted by me, Dr. Vidhi Tomar Enrollment No. 1521 under the supervision of Prof. (Dr.) P.R.Sodani for award of MBA Hospital and Health Management of the university carried out during the period from March 10, 2015 to May 13, 2015 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

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Abstract

Utilization of Child Malnourishment Treatment Centers (CMTCs) in District Amreli, Gujarat

-------A cross-sectional Descriptive Study------

Author: Dr. Vidhi Tomar

Aim: to understand utilization level of CMTCs

General Objective: To understand the utilization of CMTC services in district Amreli and factors affect the utilization pattern

Specific Objectives:

i. To understand the utilization pattern of CMTC services in district Amreli
ii. To understand beneficiary perspective
iii. To understand frontline worker (AWW) perspective
iv. To assess current status of CMTCs in terms of equipments, facilities and human resource and to identify loopholes at facility level (CMTC)
v. To devise suggestions for betterment of service delivery

Background: Gujarat, despite excellent economic growth, lags behind in nutrition, being the 4th worst performing major state for under nutrition in India as per NFHS III. Underweight prevalence in the state has reduced only by one percent from 42% in 98-99 to 41% in 05-06. Integrated Child Development Services Scheme (ICDS) under Department of WCD is striving hard to combat malnutrition in India. It has also introduced new services like Child Malnutrition Treatment Centers (CMTCs) and Nutrition Rehabilitation Centers (NRCs) in coordination with other sector like Department of Health and Family welfare in order to fight against malnutrition with full vigor.

District Amreli in Gujarat has 14 functional Child Malnutrition Treatment Centers (CMTCs). But the performance of these facilities is far below mark in treating severe acute malnourished (SAM) children as compared to other districts. Referrals made from Anganwadi centers (AWC) and other facilities are low. In particular, utilization of Child Malnutrition treatment Centers (CMTCs) in district Amreli, Gujarat is found to be low as compared to the performance of other districts.

Methodology: The study was a Cross-sectional, descriptive one conducted over a period of two months. Study subjects were mothers of CMTC beneficiaries (admitted and discharged) and CMTCs. Pre-tested tools used during the study were: Interview schedule for mothers of beneficiaries and check-list for CMTCs.

Results: Among Admitted and discharged beneficiaries, most belonged to low socio-economic strata and were being referred to CMTC through Anganwadi centres via Anganwadi workers for being identified as malnourished (weight for age). Most beneficiaries' mothers were satisfied with services but lacked knowledge regarding incentives and most children were not gaining expected weight during their stay. Anganwadi workers lacked knowledge about CMTC services and faced community-resistance. Most of the CMTCs had measuring scales and kitchen equipment, but lacked basic amenities. Also nutrition assistants were not available full-time and were sharing working hours between two CMTCs.

Acknowledgement

At the beginning of the report, I would like to express my special gratitude and appreciation Ms. Anuradha Mall, Commissioner, Women and child development (WCD) Gujarat for allowing me to pursue my dissertation from ICDS, Gujarat.

I would also like to acknowledge with much appreciation the crucial role of Dr. Abid Qureshi(Sr. Consultant-State Nutrition, GoG), Ms. Shweta Dabbi (Dy.Dir.Nurition-ICDS,Gujarat) and Mr. Vinay Tiwari(State MIS Consultant) who gave me an opportunity to work with ICDS society through campus recruitment. I would also like to express my gratitude towards Ms. Saryuben Pandya(Program Officer, ICDS-Amreli) for her judicious guidance, feedback and words of encouragement. This acknowledgement note would be not be complete without special thanks to Mr. Keshav Sharma(DPC-NHM, Amreli) who despite of other pre-occupations and busy schedule was there to guide me.

I would like to thank Dr. Kinnari Solanki(DPC-ECCE, Amreli), Mr. Chirag Kachharia (DPC-M&E),Ms. Hiral Ajmera (Dist. Coordinator-Finance), Mr. Adish(DPC-Panchmahal) and other staff members at , ICDS-Amreli for being so cooperative all the time and making this dissertation project an unforgettable experience.

I would also like to extend my gratitude towards all CDPOs, supervisors, block coordinators of ICDS-Amreli, Nutrition assistants of all CMTCs visited and Anganwadi workers for their coordination and support throughout the field work.

I express my gratitude and respectful regards to my guide Dr.P.R.Sodani –Dean (Training), IIHMR University, Jaipur, for his able guidance and useful suggestions, which helped me in completing the project-work.

I would also like to thank my institution and faculty members without whom this project would have been a distant reality.

Finally, and most importantly, I would like to thank God for allowing me to complete my project, my beloved parents for their blessings for the successful completion of this training.

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Abbreviations

ASHA	Accredited Social Health Activist
AWC	Anganwadi Center
AWW	Anganwadi Worker
CDPO	Child Development Project Officer
CHC	Community health Center
CMTC	Child Malnourishment Treatment Centre
DPC	District Program Coordinator
ECCE	Early Child Care and Education
GoG	Government of Gujarat
ICDS	Integrated Child Development Services
LOS	Length of Stay
M&E	Monitoring and Evaluation
MIS	Management Information System
NFHS	National Family Household Survey
NHM	National Health Mission
NRC	Nutrition Rehabilitation Center
PHC	Primary Health Center
SAM	Severely Acute Malnourished
SNP	Supplementary Nutrition Program
WCD	Women and Child Development

Chapter 1
About the study

1.1 Introduction: Gujarat is the 10th largest state of India with more than 60.3 million people.[1] It is an economically prosperous state. State domestic product per capita is 5th in India (Reserve Bank of India, 2012). However, despite excellent economic growth, the state lags behind in various human development indicators.[2] Gujarat is the 4th worst performing major state for under nutrition in India as per NFHS III. Underweight prevalence in the state has reduced only by one percent from 42% in 98-99 to 41% in 05-06. This picture is further complicated by a high prevalence of malnutrition among non-poor people (30% in the wealthiest quintile group) and a skewed distribution of under nutrition among boys (47%) compared to girls (42%). Since its inception on October 2, 1975, Integrated Child Development Services Scheme (ICDS) is striving hard to combat malnutrition in India.[3] With the introduction of new services like Child Malnutrition Treatment Centers (CMTCs) and Nutrition Rehabilitation Centers (NRCs) in coordination with other sector like Ministry of Health and Family welfare it is intended towards fighting against malnutrition with full vigor.

But utilization of these very services is strikingly varying in different parts of the country. The variations are noticeable between states as well as within the states. District Amreli in Gujarat has 14 functional Child Malnutrition Treatment Centers (CMTCs). But the performance of these facilities is far below mark in treating severe acute malnourished (SAM) children as compared to other districts. Referrals made from Anganwadi centers (AWC) and other facilities are low. In particular, utilization of Child Malnutrition treatment Centers (CMTCs) in district Amreli, Gujarat is found to be low as compared to the performance of other districts.

1.2 Research Question: What is the utilization pattern of CMTC services in district Amreli? What factors affect the utilization pattern?

1.3 Aim: to understand utilization level of CMTCs

1.3.1 General Objective: To understand the utilization of CMTC services in district Amreli and factors affect the utilization pattern

1.3.2 Specific Objectives:

i. To understand the utilization pattern of CMTC services in district Amreli
ii. To understand beneficiary perspective
iii. To understand frontline worker (AWW) perspective
iv. To assess current status of CMTCs in terms of equipments, facilities and human resource and to identify loopholes at facility level (CMTC)
v. To devise suggestions for betterment of service delivery

Chapter 2
Review of Literature:

Malnutrition affects the health, proper growth and productivity of at least 2 billion people worldwide. It kills nearly 3.5 million children and leaved 178 million permanently damaged. Only one-third of Indian children receive adequate quantity of complementary foods. Seventy five per cent of children below three years of age suffer from iron deficiency anemia and 50 per cent from vitamin A deficiency.[3] The National Family Health Survey 2005-2006 data on the nutrition status of children in Gujarat suggests that 41.1 percent of under-three children and 45 percent of under-five children are underweight. Amongst under-three-children 49.2 percent are stunted and 19.7 percent are wasted. [4] Sixteen Gujarat districts have 1.94 lakh malnourished children and of these, 31,300 are highly malnourished. [5] There are over 1,000 highly malnourished children in Amreli, Sabarkantha and Aravalli.[6]

Government of Gujarat (GoG) has devised Curative Aspects of Gujarat State Nutrition Mission which includes a 3 - tier approach for Integrated Management of Malnutrition at different levels:

The Village Child Nutrition Center as "**Bal Shaktim Kendra**" at Anganwadi centers for malnourished children without any medical needs. Under this program malnourished children without any medical needs are enrolled in the VCNC center for 30 working days were they are provided 5 times supervised diet + 2 times home diets in addition to micronutrient supplementation and medicines.

The Child Malnutrition Treatment Center as "**Bal Sewa Kendra**" at PHC/CHC/ Sub District level for malnourished children needing some medical care.

Under this program malnourished children with some medical needs are enrolled residentially in the CHC/ Sub District level hospital for 21 working days were they are provided 6-8 times supervised diet + micronutrient supplementation and medicines. During this period mother's of malnourished children are also provided wage loss compensation for the period they stay in the facility

Nutrition Rehabilitation Center as "**Bal Sanjeevani Kendra**" at District Hospital/ Medical College for malnourished children with significant medical care. Under this program malnourished children with significant medical needs are enrolled residentially in the District level hospital or Medical College for 21-25 working days were they are provided 6-8 times supervised diet + micronutrient supplementation and medicines. During this period mother's of malnourished children are also provided wage loss compensation for the period they stay in the facility. [7]

Gatisheel Gujarat, another landmark initiative by GoG which has set treatment of 10,000 low weight children in Anganwadi under CMTC, 200 new Bal Sewa Kendra for the treatment of malnourished children and expansion of Dudh Sanjivani scheme to total 26 talukas within a time duration of 100 days in phase I and 150 day in phase II. [8] Achievement of district Amreli in this regards has been low as well as slow as compared to other districts. Other districts like Valsad have achieved their targets of up-gradation of malnourished kids from red to yellow and yellow to green zones by 200 per cent, district Amreli has been able to achieve 97 per cent of its target so far. [9] Admission rate in CMTCs of district Amreli is also low when compared to its neighboring districts such as Bhavnagar, Gir Somnath.

Chapter 3
Methodology

3.1 Study Area: 11 blocks of district Amreli were selected for the study. During the course of study, 10 were covered

According to the 2011 census Amreli district has a population of 1,513,614.This gives it a ranking of 329th in India (out of a total of 640).The district has a population density of 205 inhabitants per square kilometer (530/sq mi). Its population growth rate over the decade 2001-2011 was 8.59%. Amreli has a sex ratio of 964 females for every 1000 males, and a literacy rate of 74.49%.

In census enumeration, data regarding child under 0-6 age were also collected for all districts including Amreli. There were total 173,555 children under age of 0-6 against 198,657 of 2001 census. Of total 173,555 male and female were 92,047 and 81,508 respectively. Child Sex Ratio as per census 2011 was 886 compared to 892 of census 2001. In 2011, Children under 0-6 formed 11.46 percent of Amreli District compared to 14.25 percent of 2001.

3.2 Type of study: It was a descriptive study using both quantitative as well as qualitative approaches

3.3 Study Design: Study design was Cross-sectional

3.4 Study duration: Study was conducted over a period of two months (March 10, 2015-May 14, 2015)

3.5 Study subjects: CMTCs, Parents of admitted and discharged beneficiaries and Anganwadi workers

3.6 Sampling: Non-Probability sampling (Purposive sampling) method was used during the study

3.7 Sample size:

Table3.1 Sample size

Sr. No.	Subject	Number
1	CMTCs	14
2	Parents of admitted beneficiaries	37
3	Parents of discharged beneficiaries	42
4	AWW	20

3.8 Data collection tools and techniques: Checklist as per GOG guidelines was used for CMTCs and semi-structured interview schedule was prepared and tested for beneficiaries and AWW. Few changes were made in the tool after testing. Tools were prepared in English but questions were asked in Gujarati during face-to-face interview..

3.9. **Data (information) collected:** Availability and accessibility of CMTCs; infrastructure, environment, equipments and supplies at CMTCs; beneficiary perspective; Facilitating factors and barriers in accessing and delivering services.

Chapter 4
Results

4.1 Admitted beneficiaries:

4.1.1 **Social and demographic profile**:

- **Age of the beneficiaries:** age of the admitted beneficiaries ranged from 6 months to 5 years with mean age 2.58 years.
- **Sex**: Sex distribution was even with respect to the admitted children with 19 female and 18 male children.
- **Religion and caste:** Majority i.e. 95% was Hindu and rest was Muslim.

Figure4.1Distribution of Admitted children by caste

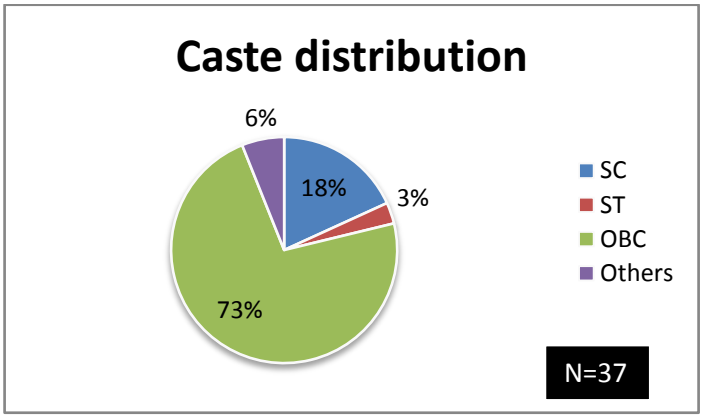
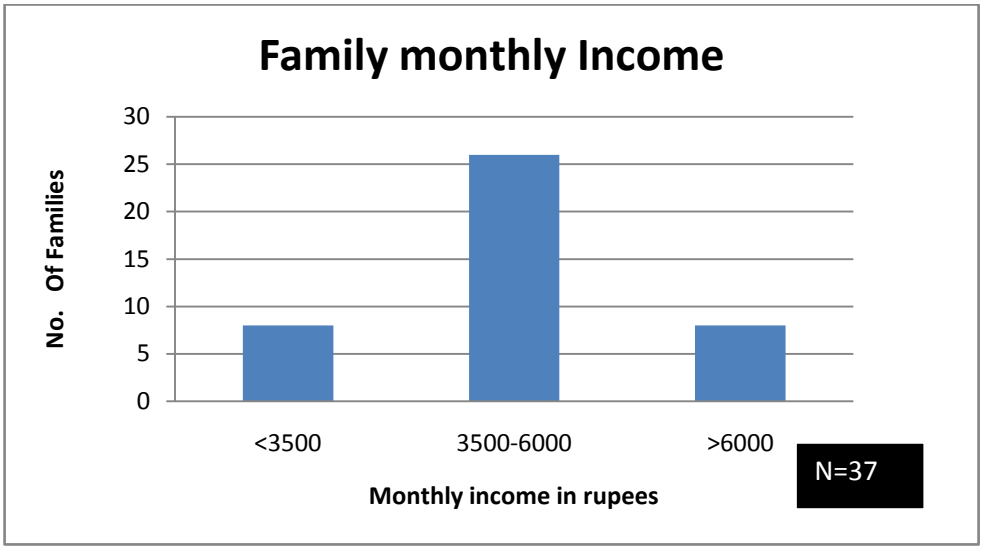


Figure 4.1 clearly depicts that seventy-three percent belonged to OBC category while SC population comprised 18 percent.

- **Monthly Family Income:**

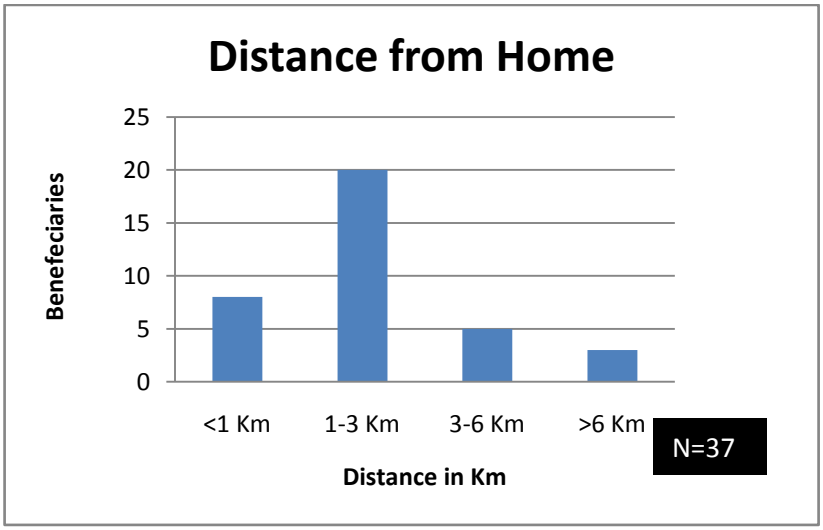
Figure4.2 Monthly family income-admitted beneficiaries



As shown in figure 4.2, seventy percent of the children admitted in CMTC across the entire district belonged to families with a monthly income ranging between Rs. 3500-6000.

- **Distance from residence:**

Figure4. 3 distance of residence of admitted beneficiaries from CMTC



Around 54 percent beneficiaries belonged to a distance of 1-3 km from the CMTC. Less than 10 percent beneficiaries were coming from rural areas as can be seen in figure 4.3.

4.1.2 Referral-related data:

- **Referral agent:**

Figure4.4 Referral agent in case of Admitted children

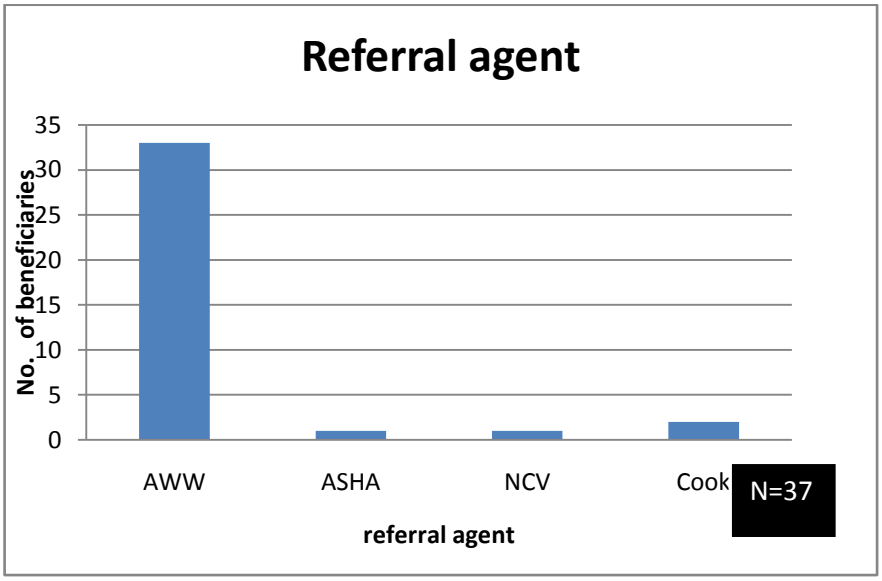


Figure 4.4 shows that eighty-nine percent beneficiaries interviewed during the study were referred by Anganwadi worker (AWW). Other referral agents identified were ASHA, NCV and cook of the CMTC itself. Out of 33 beneficiaries referred by the AWW, 30 (91%) were accompanied by her at the time of admission.

- **Reason for referral**: Majority (89%) children were referred for being underweight. Rest was found to be having low appetite.

4.1.3 CMTC-Stay related Data:

- **Place of stay:**

Table4.1 Place of stay (Admitted beneficiaries)

STAY AT NIGHT	
CMTC	33
Home	2
Relative	2
Total	37

Most of the parents preferred to go back home after having meals around 6:00 p.m.

- Major reasons cited were:

i. Objection from family(19)

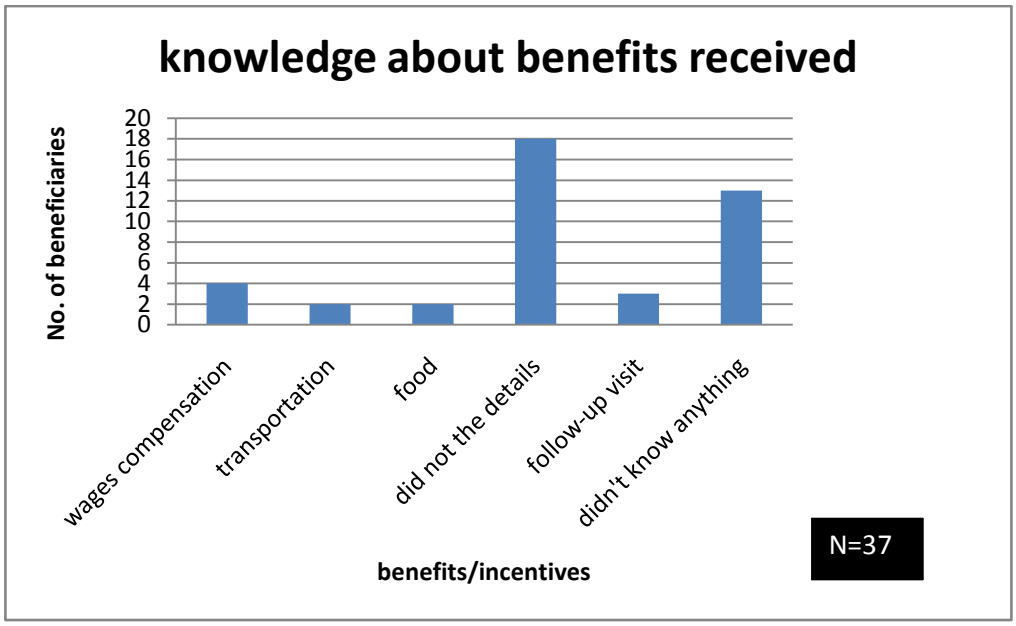
ii. Other children at home to be taken care of(6)

iii. No Information/counseling done from AWW/CMTC(6)

- **Other things about CMTC stay**: Parents (Mothers) of all beneficiaries were satisfied with the services being provided at CMTC viz. Quality of food, behavior of the staff, and cleanliness of the facility.
- **Nutrition counseling**: Twenty nine out of total 37 respondents reported of having received nutrition counseling during their stay so far. Quality of counseling seemed poor since respondents could not explain properly.

4.1.4 Knowledge about benefits:

Figure4.5 Knowledge of Admitted beneficiaries' mothers about benefits received



Most of the patients did not know about the details of benefits they receive in lieu of the treatment.

4.1.5 Knowledge about follow-up visits:

Table4.2 Knowledge about Folllow -up visits(Admitted beneficiaries' Mothers)

Sr. No.	Follow up visits recommended	No.of mothers
1	4 visits fortnightly	24
2	Did not know	8
3	Other responses(2-3 times)	3
4	not told so far	2
	Total	N=37

4.1.6 **Problems at CMTC:** Most of the parents/mothers of admitted children had no problem during their stay at CMTC. Since most of the children are from BPL

families and there are other children at home to be taken care of, night stay is difficult. One common problem faced by the beneficiaries was difficulty in getting conveyance, particularly with respect to CMTC Liliya and Mota Aakadiya.

4.1.7 Good things about CMTC as mentioned by mothers of the beneficiaries:

Table2.3 Good things mentioned about CMTC (by mothers of admitted beneficiaries)

Sr. No.	Good things about the facility	
1	Cleanliness	31
2	Well-behaved staff	29
3	Improvement in child's health	32
4	Others	29

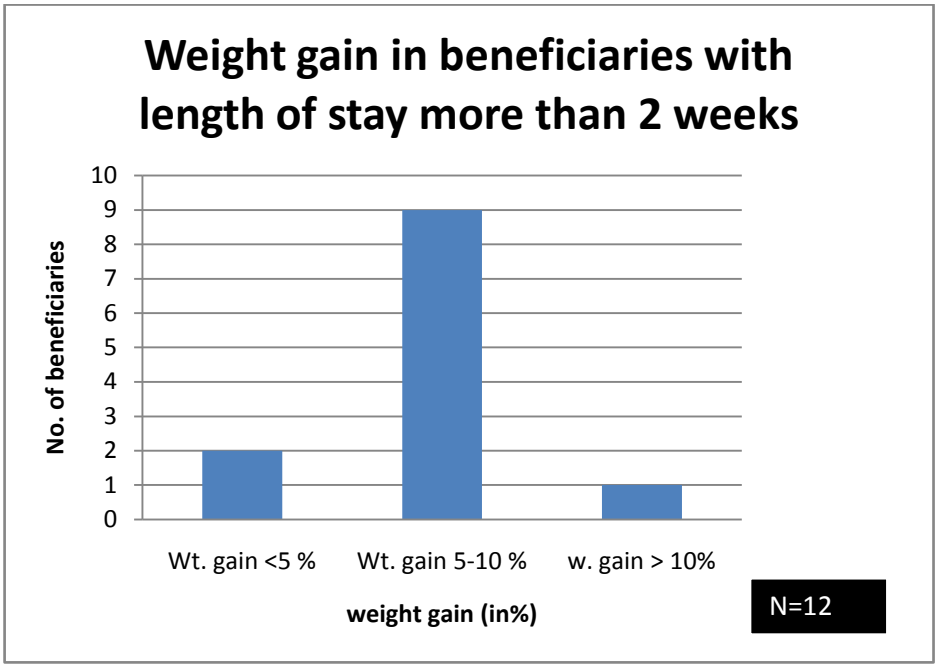
This question was open for multiple responses. Each response was assessed separately. Cleanliness and good behavior of the staff were adjudged by most of the respondents. Other good things mentioned by the respondents included food, comfortable stay, homely environment.

4.1.8 Weight gain during treatment at CMTC:

During 21-days regimen at CMTC, child is expected to gain a weight of at least 15 percent of weight a t the time of admission.

Twelve children were found to be receiving treatment for more than two weeks and weight gain during this time was analyzed. Only 0ne out of these twelve children showed weight-gain more than 10 % of targeted weight gain. Nine children (75 percent) of LOS more than two weeks showed weight gain between five to ten percent. Two children showed weight gain less than five percent against expected weight gain of 15 percent.(Refer figure 4.6)

Figure4.6 Weight-gain in admitted beneficiaries (LOS more than 2 weeks)

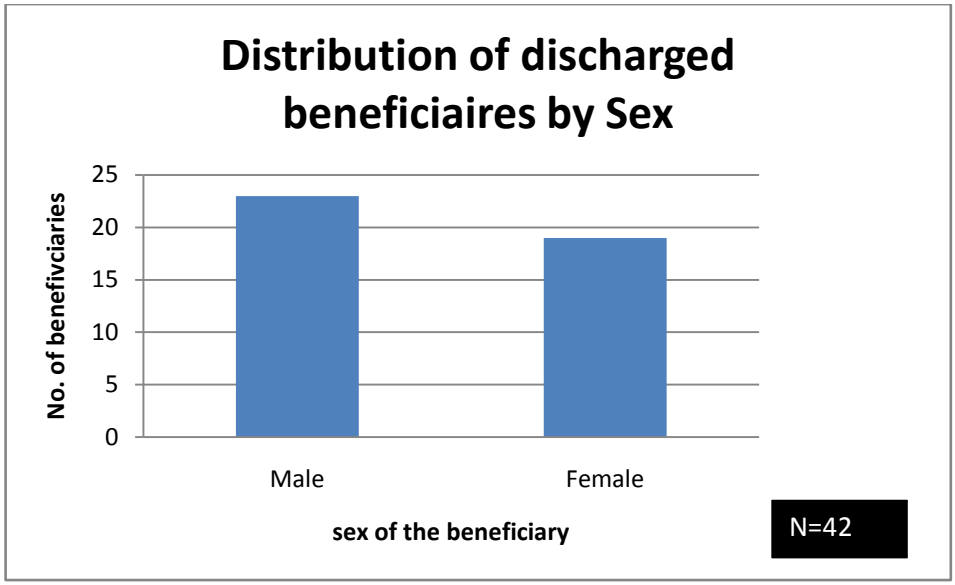


4.2 Discharged beneficiaries:

4.2.1 Demographic Profile:

- **Age**: age group of the beneficiaries ranged from 1 year to 5 years with mean age of 2.58 years.

- **Sex**: Out of total 42 beneficiaries, 23 were male and 19 were female as can be seen in figure 4.7. Figure4.7 Distribution of discharged beneficiaries by Sex



- **Religion and caste**: Eighty-six percent respondents were Hindu and remaining 14 percent were following Islam.

Table4.4 Religion and caste distribution (discharged beneficiaries)

	Distribution by religion		
Sr. No.	Category	number	Percentage (%)
1	Hindu	36	86
2	Muslim	6	14
	Total	42	100
	Distribution by Caste		
1	SC	9	21
2	ST	3	7
3	OBC	28	67
4	Others	2	5
	Total	42	100

- **Monthly Family Income**:

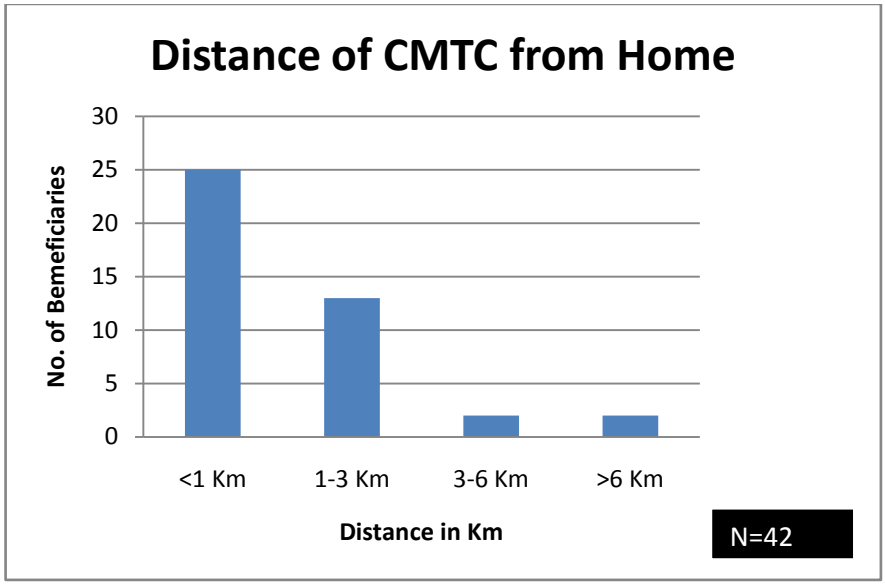
Table4.5 Monthly family- income (discharged beneficiaries)

Sr. No.	Family Monthly income (In Rs.)	
1	< 3500	28
2	3500-6000	13
3	> 6000	1
	Total	42

Two-thirds of the beneficiaries belonged to families with monthly income less than Rs. 3500.

- **Distance of CMTC from residence:**

Figure4.8 Distance of residence of discharged beneficiaries from CMTC



Most of the families that were followed up during the study were from initial batches (Jan-Feb, 2014)

4.2.2 Referral-related data:

- Referral agent: seventy-six percent discharged children were referred by Anganwadi worker. Remaining 24 percent were referred by either Medical Officer or ASHA.
- Reason for referral: Prime reason for referring the child to CMTC was underweight child, as told to 95 percent of the mothers.
- Accompanied by someone during admission: ninety-eight percent (N=42) were accompanied by Anganwadi worker at the time of admission in CMTC.

4.2.3 CMTC-Stay related Data:

- **No. of days treatment taken for**: All beneficiaries had taken CMTC treatment for 21 days.
- **Place of stay:** Only three beneficiaries stayed back at CMTC during night. Rest used to come back home for various reason.
- **Reasons for not staying at CMTC during night:** various reasons cited by the respondents were:
    i. Other children at home
    ii. Objection by family
    iii. Told by Hospital staff as an alternative
    iv. Not told by anyone to stay
- **Other things about CMTC stay**: Parents (Mothers) of all beneficiaries were satisfied with the services being provided at

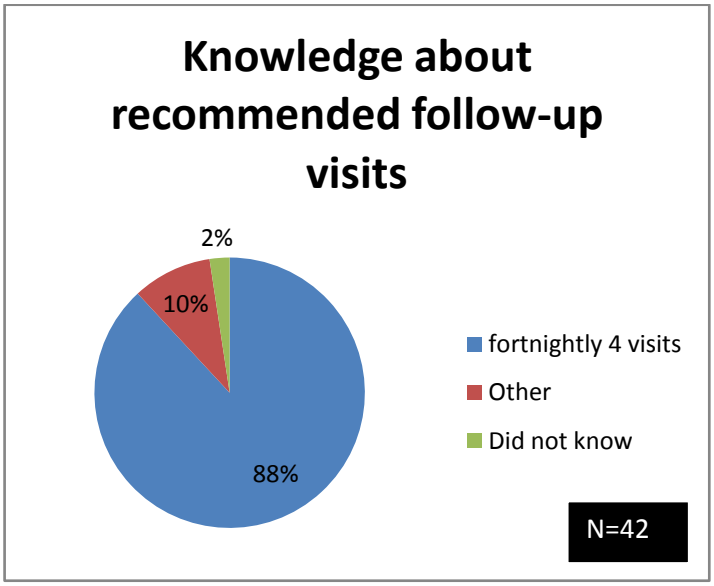
CMTC viz. Quality of food, behavior of the staff and cleanliness of the facility.

- **Nutrition counseling**: Twenty nine out of total 42 respondents reported of having received nutrition counseling during their stay so far.

4.2.4 Follow-up visit related data:

4.2.4.1 Knowledge about recommended Follow-up visits:

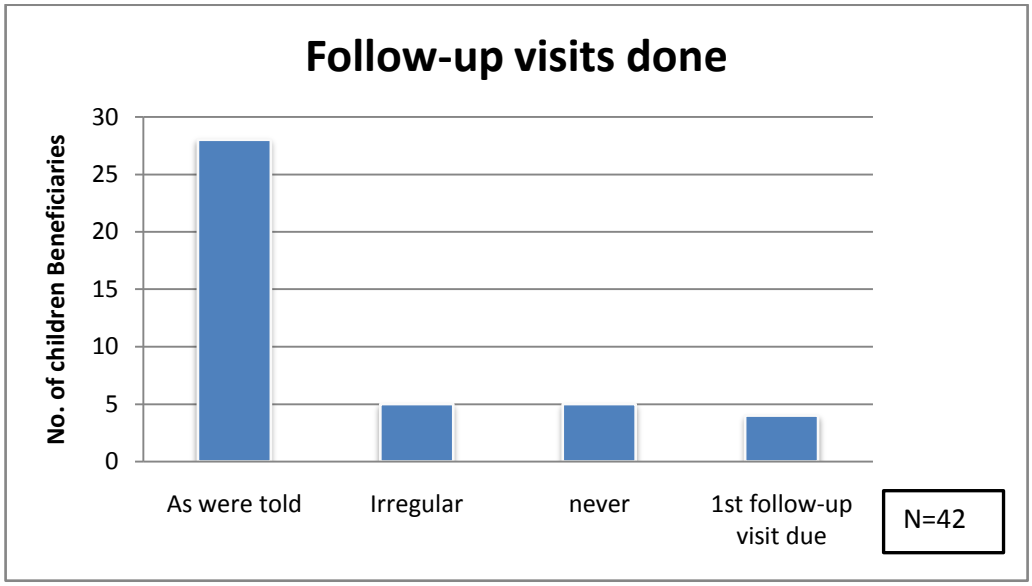
Figure4.9 Knowledge of mothers of discharged beneficiaries about recommended follow-ups



Eighty-eight percent respondents knew about correct recommended follow-up schedule. Ten percent reported wrong follow-up schedule. Two percent respondents (1) had no idea about follow-up schedule.

4.2.4.2 Follow-up visits made:

Figure4.10 Follow-ups done by discharged beneficiaries



Sixty-seven percent discharged beneficiaries were taken for scheduled four follow-up visits at fortnightly interval. Twenty-four percent were found to be irregular with scheduled follow-up visits. Remaining had their first follow-up visit still due.

- Reason for non-compliance:

i. No one at home

ii. Other work

iii. Other children

This showed little understanding on part of parents about importance of follow-up visits. It also reflects weak follow-up link on part of Anganwadi worker as well as CMTC. This is clearly reflected from next part of the analysis as well.

4.2.4.3 Accompanied by someone during follow-up visits: Out of 28 beneficiaries who completed scheduled follow-u visits, 19 were accompanied by Anganwadi worker. Of those who attended even a single follow-up visit i.e 31 beneficiaries, only 22 were accompanied by Anganwadi worker.

4.2.5 Enrollment and services taken from AWC: 0ne-fifth of the discharged children are enrolled at AWC but not availing the SNP services. These are particularly in age group 6 months- 3 years who are prime candidates for demonstrative feeding. Respondents gave various reasons for non-compliance such as crying of the child, not being told by AWW.

4.2.6 Home-visits by AWW: 41 respondents told that AWW paid regular visits to these children. Frequency of the visit varied, however, depending on many factors like no. of households under one AWC. But almost workers were paying at least one home-visit per month.

4.2.7 Episode of illness after discharge: sixty-four percent respondents did not report of any episode of illness post-discharge. Out of 15 Children who fell ill, 11 had history of fever, 3 had diarrheal symptoms and 1 got her leg fractured.

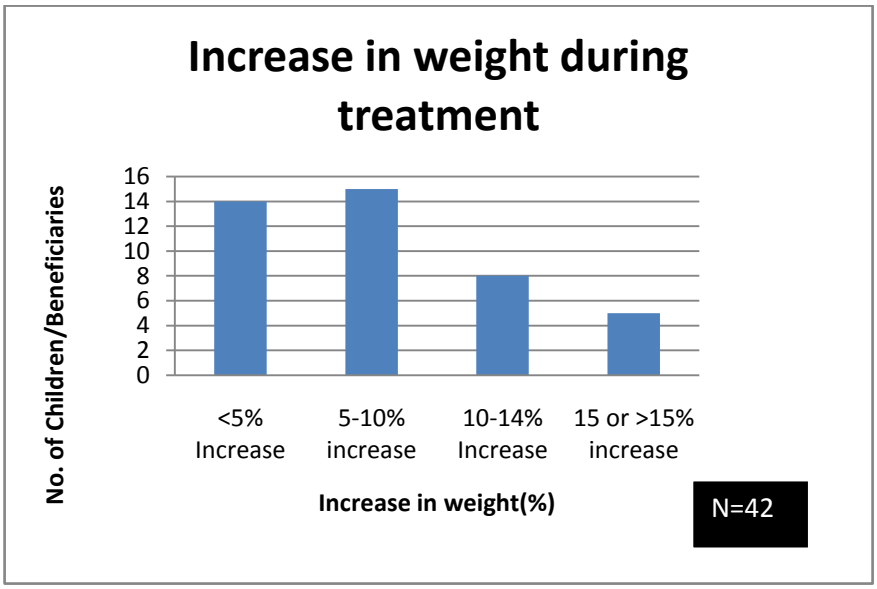
4.2.8 Problems faced during treatment: most of the respondents did not report of having faced any problem during treatment of their children at CMTC. Six respondents. Six respondents reported/complained that during entire 21-days course of treatment, their child was not attended by any doctor.

4.2.9 Weight gain during treatment:

Table4.6 Expected and actual weight gain (discharged beneficiaries)

Sr. No.	Expected increase in weight (%)	Actual increase in weight (%)	No. of children	Children (in %)
1	15	<5% Increase	14	33
2	15	5-10% increase	15	36
3	15	10-14% Increase	8	19
4	15	15 or >15% increase	5	12

Figure4.11 weight gain by discharged beneficiaries



As an indicator of success rate of CMTC, minimum 15 percent weight gain is expected in admitted children. During the study, it was found that only 12 percent showed expected

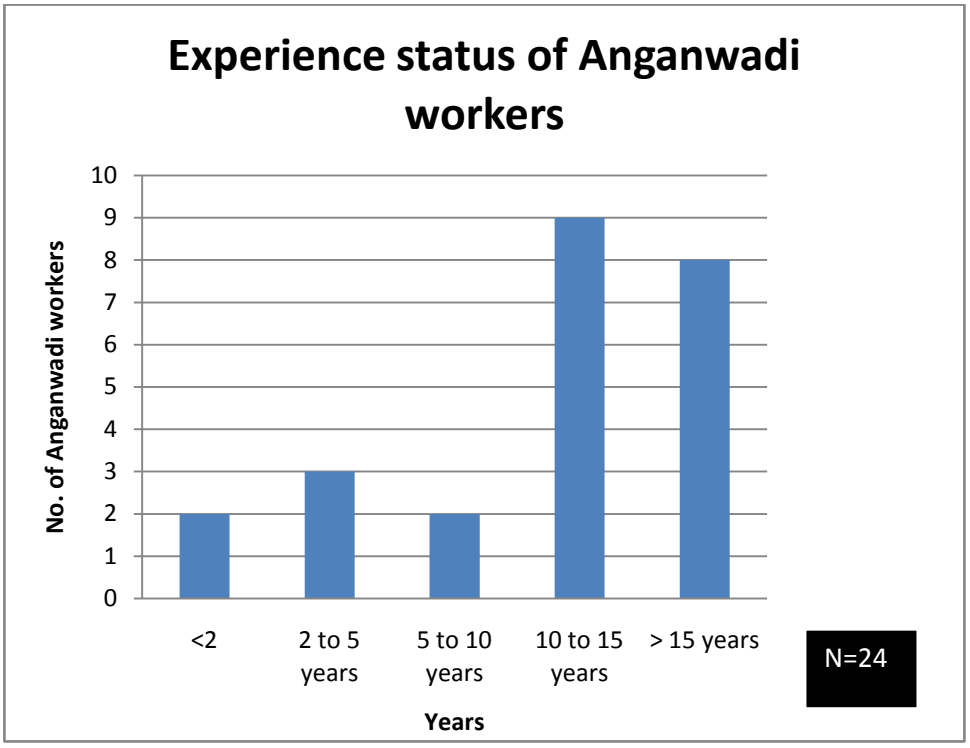
weight gain. Thirty-three percent children showed very less weight gain during 21-day stay i.e. less than 5 percent.

4.3 **Anganwadi workers**:

4.3.1 **Demographic Profile:**

- **Age:** Age of the AWWs interviewed ranged from 30 years to 56 years with mean age as 43 years.
- **Marital status**: 22 workers were marries and two were widowed.
- **Experience:**

Figure4.12 Experience status of interviewed Anganwadi workers

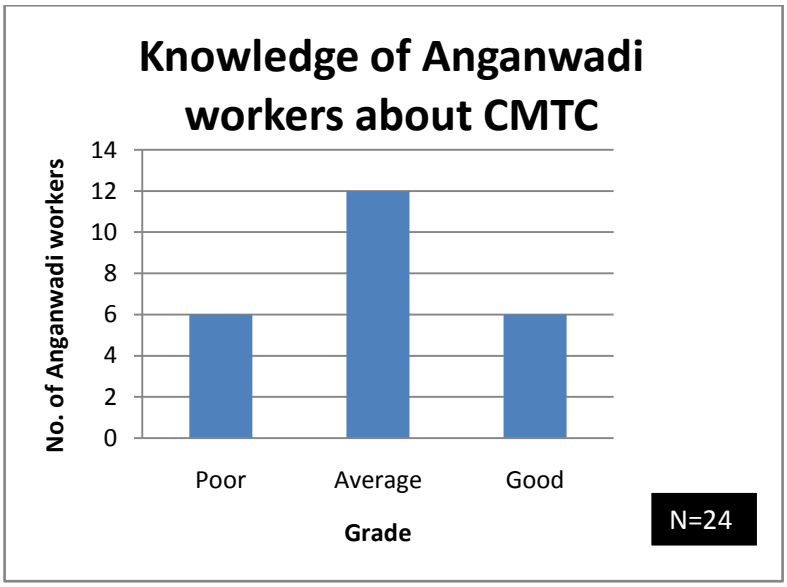


Eight AWWs had an experience of more than 15 years. Nine AWWs were working since 10-15 years. Rest seven had been working for less than 10 years in the field.

4.3.2 **Training status:** out of 24 AWWs interviewed, 21 reported of having received induction training. Out of these 21, 18 reported of having received refresher training.

4.3.3 Knowledge about CMTC:

Figure4.13 Knowledge of interviewed Anganwadi workers about CMTC



In a series of questions related to CMTC, knowledge of Anganwadi workers was assessed. Fifty percent AWWs scored between 10- 13 0ut of a total score of 19 i.e. achieved average grade. Another 25 percent were graded well and rests were graded poor.

4.3.4 Problems in referring children to CMTC: More than one-third of the interviewed workers reported of having faced resistance from community while counseling. Counseling was even more difficult if both parents are working. Wages compensation was not enough to lure the parents since they got double the amount through wages. One more problem encountered was migration of eligible beneficiary families.

4.3.5 Information linkage with CMTC: Six Anganwadi workers (from Lathi, Babra and Kunkavav) reported that they never received information about discharged or defaulter beneficiaries. This reflects a weak linkage between anganwadi centres and CMTCs.

4.4 Child Malnourishment Treatment Centers:

4.4.1 Basic equipments and facilities:

Most of the CMTCs visited were equipped with basic things like weighing machine, MUAC tapes, utensils, measuring spoons and cups, LPG cylinder and stove, cots, mattresses, bed-sheets, etc. more than 50 percent of the facilities were short of amenities like room heater, geyser, digital thermometer. Only five out of total 13 CMTCs had 10 beds as minimum recommended. Same was the status with availability of television sets. Seven CMTCs had toys for children and only two had children-friendly walls.

4.4.2 Human resource:

Most of the recommended staff was in place in all CMTCs. This includes medical officer, staff nurse, nutrition assistant and cook.

Issue identified was that most of the nutrition assistants were given charge of two CMTCs. They were handling the CMTC charge alternatively. This was hampering proper counseling sessions two be conducted with the mothers of admitted beneficiaries. Also other activites like recording of daily weight, MUAC measurement, e.t.c. were being done by cook in the absence of the nutrition-assistant. Twelve CMTCS had one helper/Aaya in place instead of two as mentioned in CMTC guidelines.

4.4.3 Accessibility:

Most of the CMTCs were present in the vicinity of the towns and easily accessible by roads. But accessibility from the far –flung areas in terms of conveyance was a problem. CMTC-Liliya was constructed in a deserted area and this was found to be a concern for the beneficiaries.

Chapter 5
Conclusion:

The study was primarily conducted to understand all supply and demand perspective in relation to Child Malnutrition Treatment Centers (CMTCs). For the understanding of demand side, mothers of admitted and discharged beneficiaries and Anganwadi workers were interviewed through interview schedules. In order to evaluate supply side, CMTCs were observed against prepared checklists for basic amenities, equipments and human resources.

Most of the beneficiaries were from urban areas/ slums, from low family-income background, mostly in the range of Rs. 2000-6000. Most of the mothers did not know about the benefits which they received in lieu of getting their ward treated. Most of the mothers, both of admitted and discharged were happy with the services of the CMTC. Few parents complained that no doctor visited their ward during the course of treatment. Mothers were given nutrition-related counseling but quality of counseling was poor. Though prime criteria for discharge of patients was a gain of at least 15 percent weight, only 12 percent (N=42) among discharged patients were found to be having a weight gain in the range of 10-15 percent. Out of 88 percent mothers who knew about recommended no. of follow-up visits, 66 percent actually paid visit to CMTC for follow-up as they were told.

AWWs lacked knowledge about CMTC (admission criteria, follow-up, days of stay and frequency of food served). AWWs were found to be paying regular home-visits to discharged beneficiaries. Main problem faced by AWWs was resistance from the community and frequent migration of the targeted population.

CMTCs lacked amenities like min.10 beds, television, toys for children and children-friendly walls. One of the main reasons for poor quality of nutrition-related counseling was unavailability of nutrition assistant for 3-4 days in a week because of dual charge of two CMTCs to one nutrition assistant.

Chapter 6
Suggestions:

In light of the study done, few things can be implemented. These include:

1. Improving quality of nutrition and health education at field level through home-visits and monitoring
2. Making efforts to convince beneficiaries to stay back at CMTC (by improving facilities at CMTC and making them children-friendly)
3. Re-starting INCC at primary level
4. Filling vacant positions
5. Improving tracking of children through home-visits and coordination with CMTC to track defaulter/drop-outs.

Annexure:

Interview schedule for admitted beneficiaries

Interview schedule for admitted beneficiaries	CMTC AREA/BLOCK-					
Sr. No.		B1	B2	B3	B4	B5
1.	Name of the child					
2.	Age of the child					
3.	Sex of the child					
4.	Religion					
	i. Hindu					
	ii. Muslim					
	iii. Christian					
	iv. Other					
5.	Caste					
	i. SC					
	ii. ST					
	iii. OBC					
	iv. Other					
6.	Occupation of parent					
7.	Monthly income					
8.	Distance or residence from Facility (In Km)					
9.	Weight of child on admission ***(see CMTC card)***					
10.	Child's current weight					
11.	For how long is your child in CMTC?					
12.	Who referred the child?					
	i. MO					
	ii. ANM					
	iii. AWW					

	iv. Other					
13.	What was the reason for referral?					
	i. Weak child/ Under-weight child					
	ii. Fever					
	iii. Infection/ Diarrhea/dysentery					
	iv. Other (Please specify)					
	v. Do not know					
14.	Did AWW/ASHA/NCV accompany you?					
	i. Yes					
	ii. No					
15.	Where are you staying during night?					
	i. CMTC/NRC					
	ii. Home					
	iii. Relative					
	iv. Other (Please suggest)					
16.	Why did not you stay at the facility?					
17.	Has your child shown recovery since the time of admission?					
	i. Yes, definitely					
	ii. No					
	iii. Not sure					
18.	How many times is food being served to your child?					
	i. 3 times					
	ii. 4 times					
	iii. 5 -8 times					
	iv. Do not know					
19.	Is food hot at the time of serving?					
	i. Yes					

	ii. No					
20.	Have you been guided about malnutrition and feeding so far?					
	i. Yes					
	ii. No					
21.	How is the behavior of staff?					
	i. Very good					
	ii. Good					
	iii. Fair					
	iv. Bad					
22.	How would you grade cleanliness of the facility?					
	i. Excellent					
	ii. Good					
	iii. Fair					
	iv. Poor					
23.	What are other benefits that you are entitled to?					
	i. Money for wage loss					
	ii. Money for transportation					
	iii. For food					
	iv. Other (Please specify)					
	v. Do not know details					
24.	Did someone charged you for the services? ***[Skip to Q. 27 if response is "NO"]***					
	i. Yes					
	ii. No					
25.	Who charged you?					
26.	How much money were you charged?					
27.	How often will you need to visit the facility after discharge in first month?					
	i. Weekly					

	ii. Fortnightly					
	iii. Monthly					
	iv. Other(Please specify)					
	v. Do not know					
28.	What are the problems that you have faced here so far? ***(Multiple responses allowed)***					
	i. Loss of wages					
	ii. Waste of time					
	iii. Personal work, so difficult to stay at CMTC					
	iv. Rude behavior of the staff					
	v. Other (Please specify)					
29.	Mention good things that you have noticed in this facility. ***(Multiple responses allowed)***					
	i. Cleanliness					
	ii. Well behaved staff					
	iii. Improvement in the health of child					
	iv. Other (Please specify)					
	v. Cannot say					
	Remarks					

Interview schedule for parents of Discharged beneficiaries

Tool for discharged Beneficiaries		CMTC AREA/BLOCK-				
Sr. No.		B1	B2	B3	B4	B5
1.	Name of the child					
2.	age of the child					
3.	sex of the child					
4.	Religion					
	i. Hindu					
	ii. Muslim					
	iii. Christian					
	iv. Other					
5.	Caste					
	i. SC					
	ii. ST					
	iii. OBC					
	iv. Other					
6.	Occupation of parent					
7.	Monthly income					
8.	Distance or residence from Facility (In Km)					
9.	Weight of child on admission date (see CMTC card)					
10.	Weight of child on discharge date (see CMTC card)					
11.	For how long was your child admitted in CMTC?					
12.	Who referred the child?					
	i. MO					
	ii. ANM					
	iii. AWW					

	iv. Other					
13.	What was the reason for referral?					
	i. Weak child/ Under-weight child					
	ii. Fever					
	iii. Infection/ Diarrhea/dysentery					
	iv. Other (Please specify)					
	v. Do not know					
14.	Were you accompanied by someone to the facility? ***Skip to Q.15,if "NO")***					
	i. Yes					
	ii. No					
15.	If yes, who did accompany you?					
	i. AWW					
	ii. ANM					
	iii. ASHA					
	iv. Other (Please specify)					
16.	Did your child show recovery during his/her stay at CMTC?					
	i. Yes, definitely					
	ii. No					
	iii. Not sure					
17.	Where are you staying during night? ***[skip to Q18 if response is "i"]***					
	i. CMTC/NRC					
	ii. Home					

	iii. Relative					
	iv. Other (Please specify)					
18.	Why did not you stay in the facility?					
19.	What change did you notice in appetite of the child during stay at CMTC?					
	i. Improved					
	ii. Diminished					
	iii. No change					
	iv. Do not know					
20.	How many times was food served to your child?					
	i. 3 times					
	ii. 4 times					
	iii. 5 times					
	iv. Do not know					
21.	Was the food hot at the time of serving?					
	i. Yes					
	ii. No					
22.	Were you been guided about malnutrition and feeding so far?					
	i. Yes					
	ii. No					
23.	How was the behavior of staff?					
	i. Very good					
	ii. Good					
	iii. Fair					
	iv. Bad					

24.	How would you grade cleanliness of the facility?					
	i. Excellent					
	ii. Good					
	iii. Fair					
	iv. Poor					
25.	What were other benefits that you received?					
	i. For wage loss					
	ii. For transportation					
	iii. For food					
	iv. Other (Please specify)					
	v. Do not know					
26.	Did someone charged you for the services? ***[Skip to Q28 if response is "NO"]***					
	i. Yes					
	ii. No					
27.	Who charged you?					
28.	How much money were you charged?					
29.	Did CMTC/NRC provide you with child's follow up schedule card?					
	i. Yes					
	ii. No					
30.	How many times were you told to visit the facility after discharge during first month?					
	i. Weekly					
	ii. Fortnightly					
	iii. Monthly					
	iv. Other(Please					

	specify)					
	v. Do not know					
31.	How many times have you gone for follow up visits to CMTC? ***(Skip to Q.32 if response is "i")***					
	i. As were told					
	ii. Infrequently					
	iii. Never					
32.	Why did not you give regular follow-up visit to CMTC? ***[answer if response to Q30 is ii/iii]***					
33.	Were you accompanied by someone during the visit to NRC for follow up? ***(Skip to Q.34 if response is "NO")***					
	i. Yes					
	ii. No					
34.	If yes, by whom?					
	i. ANM					
	ii. ASHA					
	iii. AWW					
	iv. Other (Please mention)					
35.	Was your child enrolled at AWC after discharge from NRC? ***[Skip to Q36 if response is "YES"]***					
	i. Yes					
	ii. No					
36.	Why is the child not enrolled?					
37.	Did ASHA/ AWW visit your home for follow up of child? ***(Skip to Q.38 if response is "NO")***					

	i. Yes					
	ii. No					
38.	How often did ASHA/AWW visit your home for follow up of child?					
	i. Weekly					
	ii. Fortnightly					
	iii. Monthly					
	iv. Do not know					
39.	Has your child fallen sick after treatment at CMTC? ***[skip to Q 40 if "NO"]***					
	i. A. Yes					
	ii. B. No					
40.	If yes, What type of illness it was?					
	i. Fever					
	ii. Diarrohea/dysentery					
	iii. Respiratory infection					
	iv. Other(Please specify)					
41.	What were the problems that you have faced during your stay at CMTC?					
	i. Loss of wages					
	ii. Waste of time					
	iii. Rude behaviour of staff					
	iv. Other(Please specify)					
42.	Mention good things that you noticed in this facility. ***(Multiple responses allowed)***					

	i. Cleanliness					
	ii. Well behaved staff					
	iii. Improvement in the health of child					
	iv. Other (Please specify)					
	v. Cannot say					
43.	Remarks					

Interview schedule for Anganwadi workers

Tool for AWW						
AWW3		AWW1	AWW2	AWW3	AWW4	AWW5
1.	Name					
2.	AWC code					
3.	Block					
4.	Age					
5.	Marital status					
6.	Experience					
7.	Training status					
7.1	Induction training received					
	i. Yes					
	ii. No					
7.2	Refresher training received					
	i. Yes					
	ii. No					
8.	Children enrolled					
9.	Children referred to CMTC per month					
10.	Criteria for referral					
	i. weight for height<-3SD/ SUW					
	ii. MUAC<11.5mm					
	iii. Growth faltering with other condition like infection/loss of appetite/ bilateral pitting pedal oedema					
	iv. Other (Please specify)					

	v. All of the above					
	vi. Do not know					
11.	For how many days does the child need to stay in CMTC?					
	i. One week					
	ii. Two weeks					
	iii. At least 21 days					
	iv. Do not know					
12.	How many follow-up visits are recommended after the child is discharged?					
13.	Frequency of meals for a child in CMTC					
	i. 5 times a day					
	ii. 4 times a day					
	iii. 3 times a day					
	iv. Do not know					
14.	Problems faced in referral of children					
	i. Lack of knowledge in identification of SAM children					
	ii. Lack of equipment					
	iii. Resistance from community					
	iv. CMTC is far off					
	v. Other (Please specify)					
15.	How often do you accompany referred SAM children?					
	i. Always					
	ii. Often					
	iii. Sometimes					

	iv. Never					
16.	Do you receive any incentive for accompanying SAM child?					
	i. Yes					
	ii. No					
17.	How often do you receive information about discharged children from CMTC?					
	i. Time-to-time					
	ii. Sometimes					
	iii. Never					
18.	Are all discharged children re-registered in your center? **(*Skip to Q20 if response is "Yes")---CHECK REGISTER***					
	i. Yes					
	ii. No					
19.	What is the reason for failure of registration of these discharged children?					
	i. Lack of time					
	ii. Resistance from community					
	iii. Other (Please specify)					
20.	Do you pay home-visit to discharged children? **(*Skip to Q22 if response is "Yes")*** ------Check register					
	i. Yes					
	ii. No					
21.	What is the reason for not paying home-visit?					
	i. Lack of coordination with					

	CMTC					
	ii. Lack of time					
	iii. Resistance from community					
	iv. Other (Please specify)					
22.	How often do you pay home-visit?					
	i. Weekly					
	ii. Fortnightly					
	iii. Monthly					
23.	Problems faced during follow-up visit					
	i. Lack of coordination with CMTC					
	ii. Lack of time					
	ii. Resistance from community					
	v. Other (Please specify)					

Checklist for CMTCs

Check-list for CMTC					
Sr. No.	ITEM	Quantity recommended	Quantity observed/ Present	CMTC ……	REMARKS
1	Length Board	1			
2	Electronic weighing machine	1			
3	MUAC tapes	2			
4	Measuring cups and spoons	2 sets			
5	LPG connection and stove	1			
6	Storage tins for kitchen	10			
7	Feeding utensils-katori, spoon, plates, glasses	20			
8	Cooking utensils	Yes=1 No=2			
9	Geyser for bathroom	1			
10	Refrigerator	1			
11	Water purifier	1			
12	Mixer	1			
13	Room heater	1			

14	Room thermometer	1			
15	Digital thermometer for children	2			
16	Baby blankets	10			
17	Mosquito nets	10			
18	Bed sheets	20			
19	Mattresses	10			
20	Cots/Beds	10			
21	Chairs	4			
22	Table	2			
23	Soft boards	2			
24	White boards	2			
25	TV with DVD player	1			
26	Panels for protocol and treatment	Yes=1 No=2			
27	Dari, chatai, aasan	2 each			
28	Dustbin, doormats, shoe racks	2 each			

29	Trunks/bedside cabinets	10			
30	MIS registers, SAM charts, Admission, Discharge and Follow-up cards	Yes=1 No=2			
31	Transfer slips from-CMTC to VCNC, CMTC to NRC	Yes=1 No=2			
32	Toys for children	Yes=1 No=2			
33	Wall painting to make CMTC child-friendly	Yes=1 No=2			

Human Resource in CMTC

Human Resource			
Sr. No.	**Designation**	**Positions**	**CMTC**
1	MO	1	
2	SN	4	
3	NA	1	
4	Cook	1	
5	Aaya	2	

Consent Form

Questionnaire schedule for Parents of beneficiaries

Descriptive study on utilization of CMTC services in District Amreli, Gujarat

District name:

CMTC:

Name of the respondent:

Namaste! My name is ---------- and I am from ICDS, Jilla Panchayat, Amreli conducting a survey to conduct a study on utilization of CMTC services in District Amreli, Gujarat.

I would greatly appreciate your participation in this survey.

I would like to ask you some questions about the same. Survey usually takes 10-15 minutes to complete. Information you provide will be kept strictly confidential and used only for research.

Participation in survey is voluntary. If you choose to participate, you may withdraw at anytime. However we hope that you will take part in survey since your participation is important.

May I begin the interview now?

Respondent agrees to be interviewed…….1.Q.no1.
Respondent does not agree to be interviewed……2.End.

Interviewer's Name: …… Date: …….

Signature:..……

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