

To Assess the Functioning of CMAM Program Through KAP Study Analysis in Surendranagar District

By

Aanchal Bajaj

*Dissertation submitted for the partial fulfillment of the
MBA Hospital and Health Management*

Academic year, 2015-2017



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TO WHOMSOEVER IT MAY CONCERN

This is to certify that Aanchal Bajaj student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at National Health Mission, Gujarat from 6th February to 5th May, 2017.

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

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.



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Completion of Dissertation under
National Health Mission, Gujarat

The certificate is awarded to

Dr. Aanchal Bajaj

In recognition of having successfully completed his
Dissertation in Aarogya department

And has successfully completed his Project **To assess the Functioning of CMAM
Programme through KAP study analysis in Surendranagar district**

Date 6-5-17

Organization: **National Health Mission**

He comes across as a committed, sincere & diligent person who has a strong drive
& zeal for learning

We wish him all the best for future endeavors

Mentor


CDHO,

National Health Mission
Surendranagar, Gujarat

THE IIMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **“To assess the functioning of CMAM program through KAP study analysis in Surendranagar district”** and submitted by **Dr Aanchal Bajaj** Enrollment No. **IIHMR- U/01/2015-17/0243** under the supervision of **Dr J P Singh** for award of MBA in Health & Hospital of the University carried out during the period from **6th February 2017 to 5th May’2017** 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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This is to certify that all ethical issues have been considered while collecting data for my dissertation titled **To assess the functioning of CMAM program through KAP study analysis in surendranagar district.**

A handwritten signature in blue ink, appearing to read 'Asi' with a stylized flourish at the end.

Signature of student

ABSTRACT

Title: To assess the functioning of CMAM program through knowledge and practice study analysis of ASHA and beneficiaries in Surendranagar district of Gujarat.

Background: The CMAM approach includes community outreach (for community sensitisation and community involvement, active case finding and home follow-up of problem cases), outpatient management of MAM (depending on the context), outpatient management of SAM without medical complications and inpatient management for the stabilisation of SAM with medical complications. CMAM is closely linked with preventive and other curative health and nutrition interventions and social safety nets. This study is done as to assess the Functioning of CMAM Programme through Primary Data collection by Rapid situational analysis on knowledge and practice of ASHAs and Beneficiaries, in Surendranagar District of Gujarat undertaken by NHM Gujarat.

Rationale of the study: The present study is aimed to assess the knowledge and practices of ASHA and beneficiaries regarding malnutrition and CMAM program.

Research question: What is the existing knowledge and practices of ASHA and beneficiaries regarding CMAM program in Surendranagar district of Gujarat?

Objectives:

- To assess the knowledge and Practice of Parents regarding Malnutrition and the CMAM Programme.
- To assess the knowledge and practice of ASHA's regarding the CMAM Project.
- To review the Secondary Data to know the extent of CMAM program outcome.

Research Methodology

- **Research Design:** Quantitative Design.
- **Study Design:** observational cross sectional study
- **Study Location :** village khodu, nagara, katuda, prangadh, dedadara and kharva of Wadhwan block of Surendranagar district.
- **Sample size:** 20 Parents of enrolled children in CMAM programme, 30 ASHAs
- **Sampling Method:** Non-Probability, Convenience Sampling.
- **Study Duration :** Three month
- **Study Respondents:** Parents of Enrolled Children in CMAM and ASHA workers of that area.

Methodology:

- **For Primary Data collection:** According to convenience sampling village khodu, nagara, katuda, prangadh, dedadara and kharva were visited. A Rapid Situational analysis tool was prepared for ASHA and the parents of SAM Child enrolled, at their home setting in these

village the Questions were asked and the Responses were recorded. The Questions were close ended as to explore whether the Target population falls into that Range of responses, with an Intent to find Probable reasons.

- **For secondary Data collection** :From the State monitors the figures for Indicators of CMAM Project was collected and recorded as to analyze the SAM load and What is the success rate.
- **Data analysis**: Data is interpreted through coding in MS-Excel.

Results

There were gaps in the knowledge of ASHA and beneficiaries about the CMAM program. The major cause of delay in the treatment was found to be low awareness among population in about 60% cases. Only 60% of the ASHA workers knew about how to measure MUAC. 65% of parents responded positively about improvement in health of their children. 70% of parents were counseled by ASHA.

Conclusion The study aimed to assess the overall functioning of CMAM programme and its effectiveness in improving overall health status of SAM children. It is evident from the results and discussion that there is lack of awareness about the problem and inefficient utilization of resources. There are gaps in the knowledge of ASHA workers about the program which is a big concern. Moreover the practices are not followed the way they should be. There is a high dropout rate which is because of low awareness.

ACKNOWLEDGMENT

This dissertation is an immense academic record and value for the student of any professional course and for the MBA student who have to be in the health sector with the theoretical knowledge. It gives students practical experience and confidence in his performance.

I would like to thanks to the respondents who answered the questionnaires for their participation. This survey could not possible without their support and participation. I am ever grateful to them.

I would like to my sincere gratitude to my mentor Dr J P Singh for his expert guidance full support and encouragement throughout my study.

I would like to heartiest thanks to Dr S M Dev (CDHO) Dr. Chandramani (RCHO), Ms Rachan(P A nutrition), who cope with the problems that I faced during my dissertation.

I am also very thankful to the respondent who gave me time to share their knowledge and answer my questions to complete my project.

Lastly I would like to thank all those who helped me in any way in my project.

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Table of Abbreviations

ASHA: Accredited Social Health Activist

AWC: Anganwadi Centre

AWW: Anagandwadi workers

CHC: Community Health Centre

CFO : Chief Finance Officer

CMAM: Community based Management of acute malnutrition

DWCD: Department of Women and Child Development

EDNS : Energy Dense Nutrition Supplement

GAM: Global Acute Malnutrition

MAM: Moderate Acute Malnoursih

MTC: Malnutrition Treatment Centre

MUAC: Mid-Upper-Arm-Circumference

SAM : Severe Acute Malnourish

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I. INTRODUCTION

Undernourishment, as a major public health and nutrition challenge faced by many developing countries, stands as a result of numerous key social and financial issues such as lack of education, insufficient health care services and ill-informed cultural behaviours. About 36 per cent of India's children are underweight, 38.4 percent are stunted and 21 percent of children are wasted as per NFHS- 4 report. Indeed, the average for developing countries in general is 27 per cent ². In fact, according to WHO, about fifty percent of infant and child deaths may be related with malnutrition [1]

Speaking undernutrition in children below five years undernutrition is linked with high rates of deaths and illness and is a fundamental issue in nearly one-third to half of all children below five years who deacease each year of avoidable causes. Numerous of these deaths are on account of severe undernourishment. There is plenty proof signifying that great numbers of children with SAM that do not have medical complications (85 – 90% of all SAM children) can be cured in their societies without being admitted to a health facility. Children coped at particular units situated at health facilities too need to be monitored up at their homes and groups after being cleared for sustained care and support and to stop the return. Therefore a community based programme, which accompaniments and relates to facility based interventions must be put in place concurrently. Effective management of SAM must be built on the elementary principle of “Continuum of Care” - from the homebased and community, to the health centre /health facility and back again. It must lastly be documented that though cure is immediately required for those who are rigorously malnourished, preventing child malnutrition is very important. NRCs will decrease child deaths but will not increase the nutritional status of children in the community.

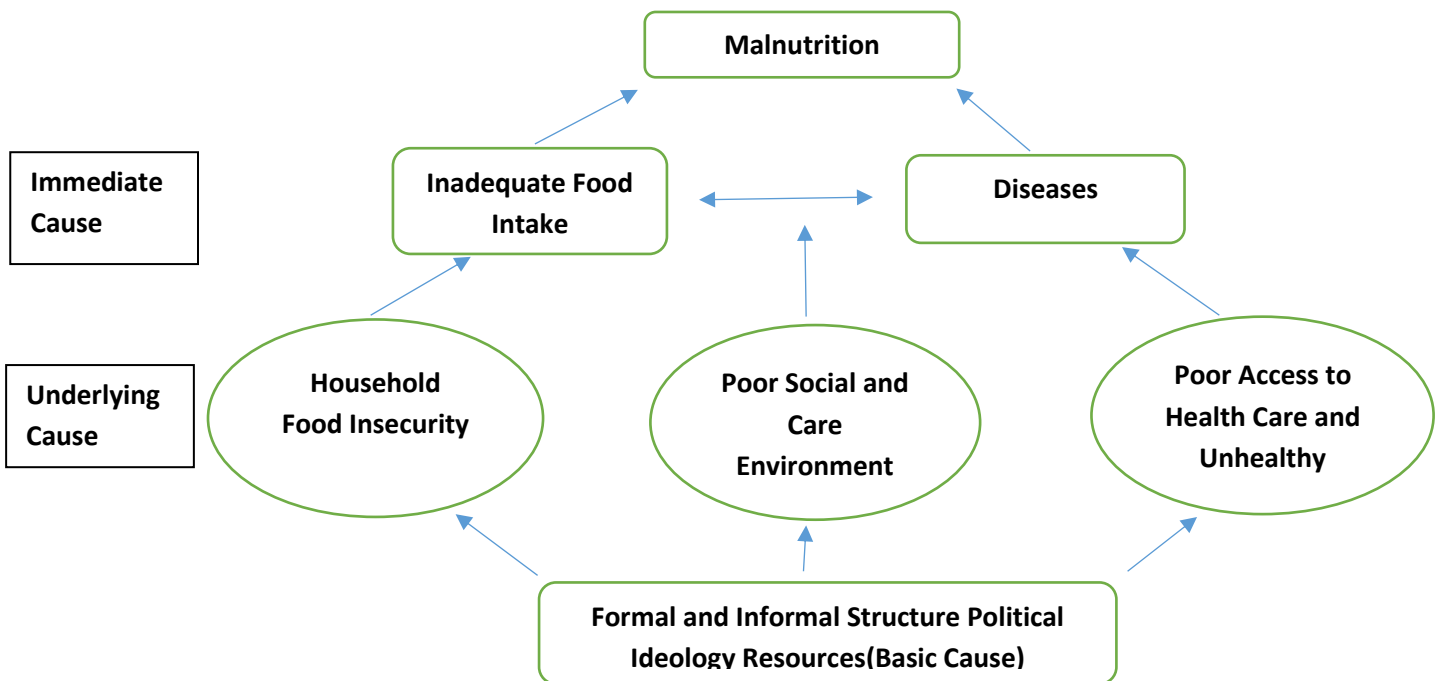
What is malnutrition

- Malnutrition is the situation that grows when the body does not get the right quantity of nutrients it needs to keep healthy tissues and organ function.
- The term malnutrition denotes both to undernutrition and over nutrition.
- Malnutrition is a health consequence as well as a risk factor for disease and worsened it can upsurge the danger both of morbidity and mortality.

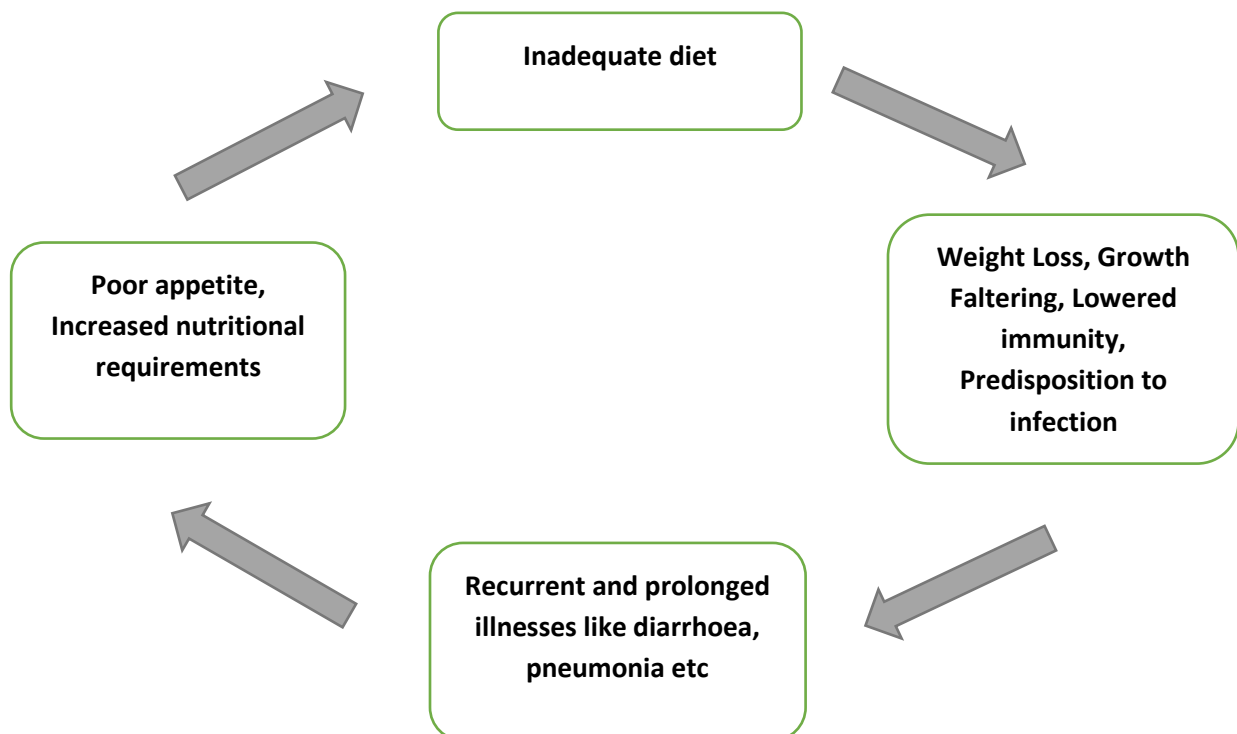
Types of malnutrition

- **Under-weight** Low Weight-for-Age (WFA) <-2SD - Composite index measure of acute and chronic malnutrition.
- **Stunting** Low Height-for-Age (HFA) <-2SD - reflects poor skeletal growth - Chronic malnutrition. It is linear growth retardation resulting from failure to receive adequate nutrition over a long period or recurrent infections. • Indicator of past growth failure. •
- **Wasting** Low Weight-for-Height (WFH) <-2SD reflects recent weight loss or gain- Current or Acute malnutrition. • Wasting results from failure to gain weight or actual weight loss. A wasted child looks weak and thin with gradual loss of fat and muscles.

- **Causes of Malnutrition**



Vicious cycle of malnutrition



Status of malnutrition in Gujarat

In Gujarat, 12 lakhs of children are born each year and many mothers die during this procedure of gravidity and child birth.. As per the Complete Nutrition Survey in Gujarat (CNSG, 2014): In 2014, incidence of underweight (too thin for age) in Gujarat is assessed to be at 10.4% whereas wasting (too thin for height) is estimated to be at 11.4%. Stunting (too short for age) is estimated to be at 37.2% Only 40% of children aged between 36-59 months were going to the AWC. 40% of children aged 6-59 months were getting take home ration. In case of the amount of under-nourished children, the gap for “wasted children” has significantly gone down and that for the underweight children has dropped slightly in the last decade after increasing during the nineties. However, the gap for the “stunted children” has shown a large surge mainly between 1998-2001 and 2008-10. In case of children with no vaccination, the gap fell during the 90s and again amplified during the last decade. Thus, relative performance of Gujarat in the health output indicators has not been consistent over time. These gaps are suggestive of the status of malnourishment and coverage of children under immunization is a matter of disquiet for the state. Among the other vital indicators such as Maternal

Identification of Children with Severe Acute Malnutrition (SAM) in the Community

- Severe Acute Malnutrition (SAM): – weight-for-height/ length SD score < -3SD and/or – Mid Upper Arm Circumference (MUAC) < 11.5 cm and/or – presence of bilateral pitting oedema.
- Moderate Acute Malnutrition (MAM) – weight-for-height SD score between -3SD to <-2SD and/or – MUAC of 11.5 to < 12.5 cm AND – no bilateral pitting oedema. Children with SAM Need

Modality of treatment

It will depend on the presence/absence of appetite and/or medical complications:

- SAM children with no medical complications and no edema and with good appetite (85–90%) may be managed in the community as outpatients in CMAM. These will be treated through Ready-to-Use Therapeutic Food (RUTF) and routine medicines to treat simple medical conditions
- SAM children with poor appetite and/or medical complications (10–15%) will need facility based care as inpatients in NRCs/CMTCs. These will be treated as inpatients until they are well enough to continue therapeutic care as outpatients in the C-MAM programme.

Screening of children with SAM

- 1) Active Case Finding
- 2) Passive Case Finding

3) Self Referral

4) At Hospital

Identification of Children with SAM in Community

- Weight
- Length/Height
- Weight for Height (SD scores)
- MUAC
- Bilateral Pitting Oedema

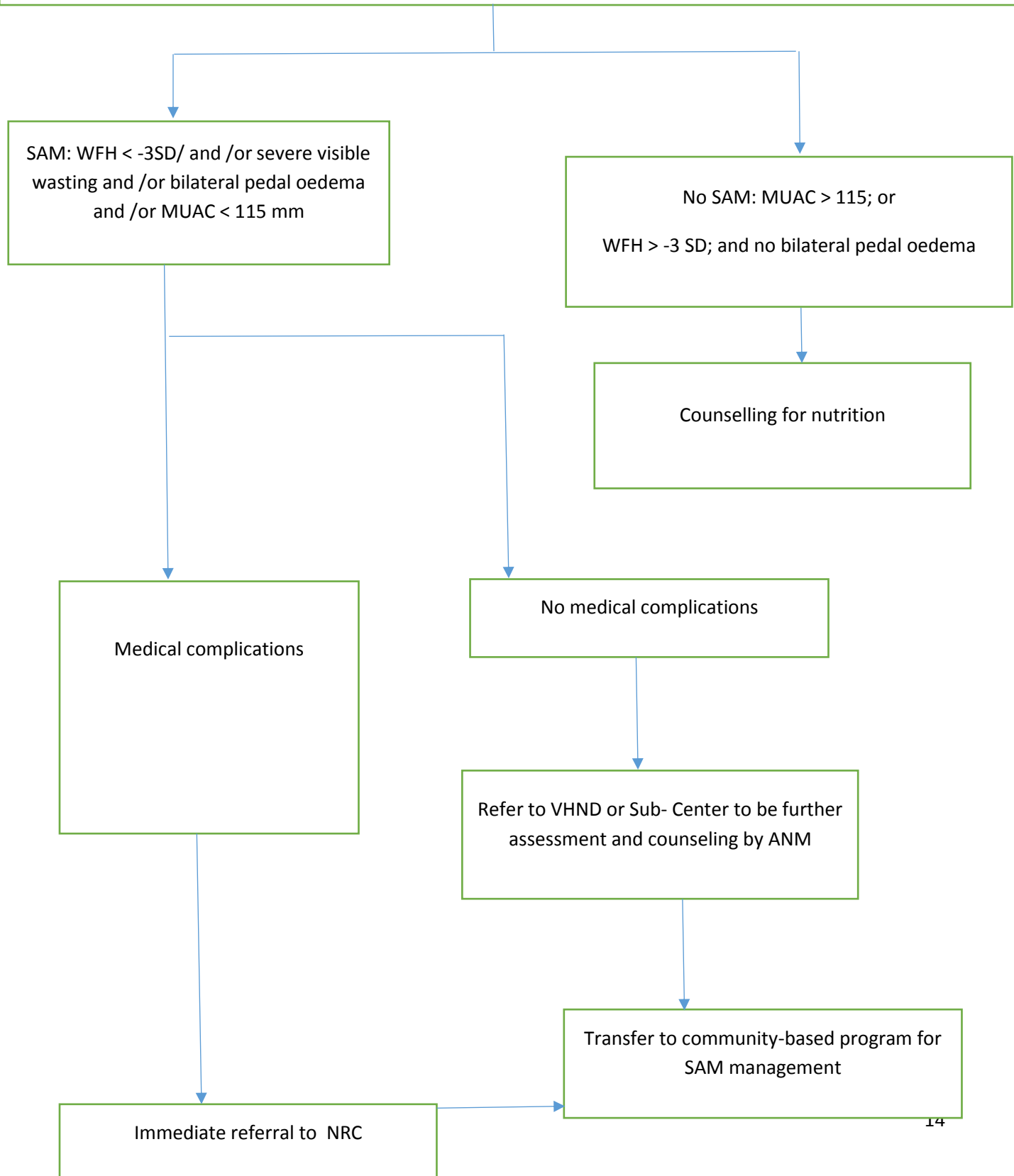
1. **Weight**- Measuring weight by using salter scale/Digital machine.
2. **Length/height**- Length to be taken of children ≤ 2 years/ < 87 cms (infantometer/lengthboard)
Height to be taken of children > 2 years/ > 87 cm (Stadiometer)
3. **Weight for Height (SD scores)** - WHO and UNICEF recommend the use of a cut-off for weight for height below $-3z$ of the New WHO growth standard to identify infants and young children being SAM
 - Use weight for height reference table to classify child as SAM if below -3 SD
 - If the SD score is less than -3 SD ($SD < -3SD$) the child has Severe Acute Malnutrition.
4. **MUAC**- it is Used for children 6- 59 months
 - Standard, flexible, and non-stretchable tape
 - Measured on left upper arm
 - Indicates muscle mass and fat reserves
 - Is age independent
 - Best predictor of mortality
 - < 11.5 cm SAM

Case identification

Active screening at village level by AWW/ASHA through house to house visit with MUAC tape for all children

Passive screening through Growth Monitoring

Screening of children coming to OPDs /inpatient wards in health facilities



The CMAM approach has 4 components:

1. Under-nutrition awareness and prevention to reinforce Community mobilization: the community ownership, early detection and referral with subsequent followup.
2. Once the community workers detect the Outpatient Therapeutic Program (OTP): SAM children, they are referred to the nearest OTP. The OTP sites will open once in a week following a regular rotation, and will admit SAM children without medical complications and provide them appropriate follow-up and home-based treatment. The location of these sites will be strategically determined based on the current program catchment area. A clear therapeutic protocol would need to be prior developed and validated based on national guidelines and latest WHO recommendations. An adapted home-based treatment will allow a recovery for SAM children directly within their community, increasing the coverage of the program and easing the follow-up process when compared to the current facility based response of 14-day of MTC hospitalization.
3. As currently implemented, moderate Supplementary Feeding Program (SFP): acute malnutrition (MAM) children will keep on being referred to the nearest Anganwadi Centre (ICDS program) to receive supplementary food ration, preventing the risk of deterioration to a SAM condition.
4. In the case of a CMAM approach, this component would mainly Inpatient care: focus on the facility-based treatment of SAM children with medical complications only, threatening their lives and recovery.

I. Review of literature

Globally, an estimated 52 million children under five years old are acutely malnourished; 70% of them live in Asia, mostly in South-Central Asia (UNICEF, 2012).

The efficacy of WHO guidelines and regimens for reduction of mortality through hospitalized management of SAM children in Africa (compared with conventional treatment) is well established [2-4].

The India National Family Health Survey (NFHS 3, 2006) states that 20% of children under five in India are wasted, translating into an astounding 25 million acutely malnourished children in India alone – half the global burden.

In an attempt to determine whether economic growth is associated with reduction in child undernutrition in India, a review conducted by researchers from Harvard concluded that economic growth did not help in reducing undernutrition (Subramanyam et al, 2011).

II. Problem statement : The CMAM method comprises community outreach, outpatient management of MAM outpatient management of SAM without medical complications and inpatient management for the stabilisation of SAM with medical complications. This study is done as to assess the Functioning of CMAM Programme through Primary Data collection by Rapid situational analysis on knowledge and practice of ASHAs and Beneficiaries, in Surendranagar District of Gujarat.

III. Research question

What is the existing knowledge of ASHA and beneficiaries along with practices regarding CMAM program?

IV. Objective :

1. To assess the knowledge and Practice of Parents regarding Malnutrition and the CMAM Programme.
2. To Assess the ASHA's understanding regarding the CMAM Project.
3. To review the Secondary Data for measuring the Indicators of CMAM.

V. Research Methodology:

Research Design: Quantitative Design.

Study Design: Exploratory Study Design

Study Location : village khodu, nagara, katuda, prangadh, dedadara and kharva of wadhwan block of surendranagar district.

Sample size: 20 Parents of enrolled children in CMAM programme, 30 ASHAs

Sampling Method: Non –Probability, Convenience Sampling

Sample selection criteria :**Inclusion Criteria:**

1. Mothers who were willing and available during the period of study .
2. Mothers whose children were enrolled in the CMAM Project and who are in age group of 6 to 59 Months.

Exclusion Criteria :

1. Mothers who have children with history of Complications.
2. More than 59 Months children were not included.

Study Duration : One month

Study Respondents: Parents of Enrolled Children in CMAM

Methodology: For Primary Data collection : According to convenience sampling village khodu, nagara, katuda, prangadh, dedadara and kharva were visited . A Rapid Situational analysis tool was prepared for ASHA and the parents of SAM Child enrolled ,at their home setting in these village the Questions were asked and the reponses were recorded. The Questions were close ended as to explore whether the Target population falls into that Range of responses, with an Intent to find Probable reasons.

For secondary Data collection :From the State monitors the figures for Indicators of CMAM Project is being collected and recorded as to analyse the SAM load and What is the success rate .

Secondary Data is being analysed as to assess the Characteristics like Programme Effectiveness and appropriateness IN TERMS OF. The Indicators are as follows :

- 1.Cured
- 2.Defaulters
- 3.Non Respondents
- 4.Deaths

DATA ANALYSIS PROCEDURE:

Data is interpreted through coding in MS-Excel .

The Questionnaire records responses from the parents of the enrolled Children and ASHAs of the sub centre.

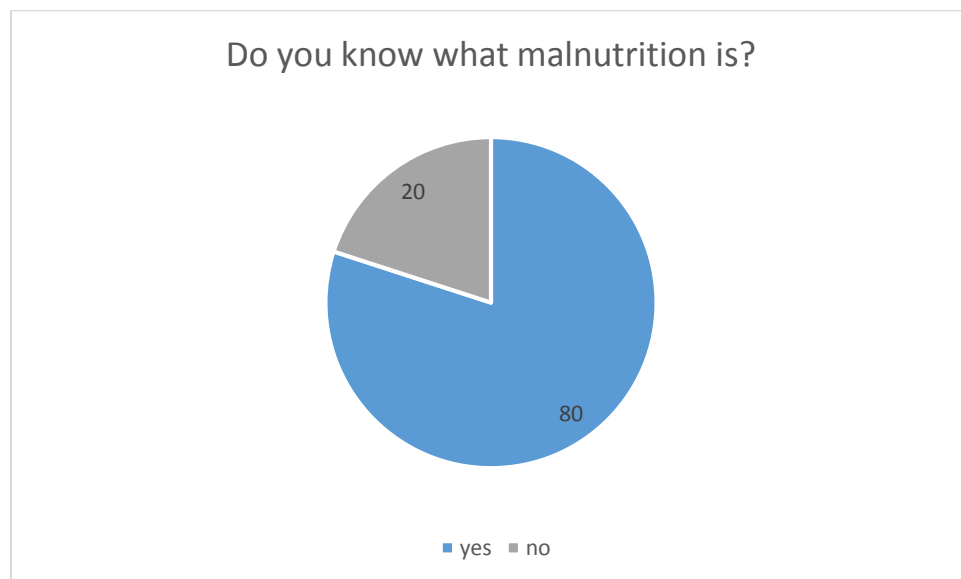
- The coding for the answers given by them is recorded as CODE-1
- The coding for the options not given by the respondents is recorded as CODE -0 .
- The Data collected is interpreted and analysed with the help of diagrams and Graphs.

VI. Results

When the Questions based on knowledge and Practice were asked from the Parents of the enrolled SAM Children. Results of Some Indicators are highlighted as related to.

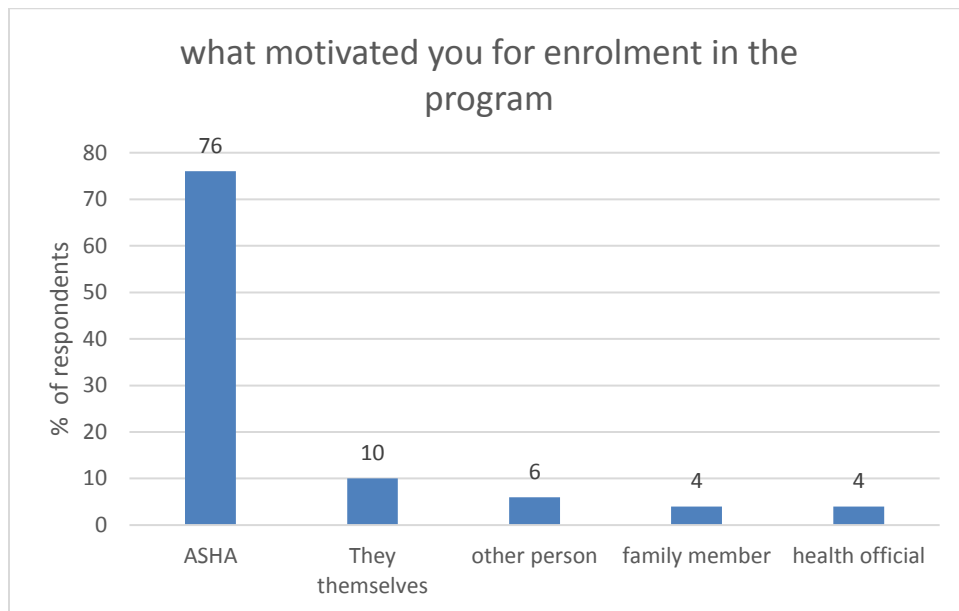
➤ Knowledge

chart depicts whether parents of enrolled children know about malnutrition



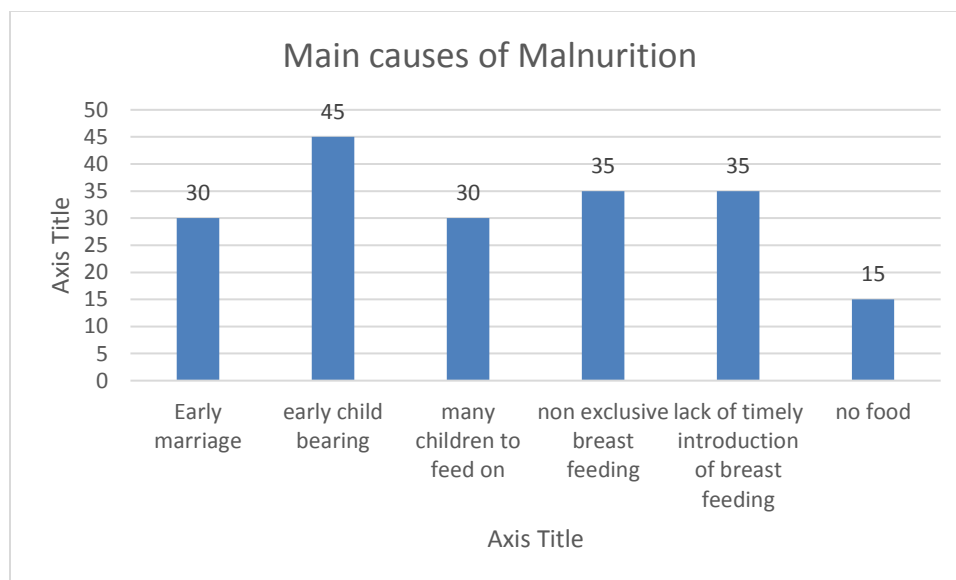
As the chart depicts about 80% parents whose children were enrolled in the CMAM program were aware of what malnutrition is. And they were interested in seeking the treatment. While 20% of the parents were not aware about the ailment.

1. Chart depicting the motivational factors for the parents to seek the treatment for their children



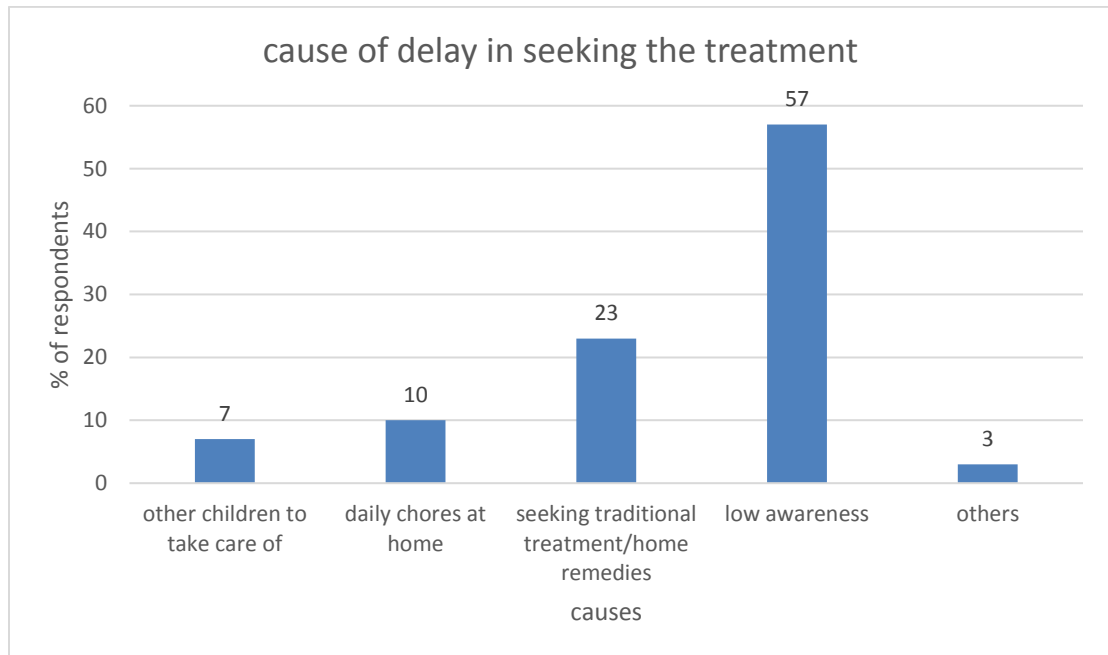
About 76% of the parents were motivated by ASHA worker while 10% themselves went for the treatment. 6% were motivated by some other person while very less were motivated by a family member or a health official.

2. Chart depicting the main causes of severe acute Malnutrition



Major cause for malnutrition is found out to be early marriage and early child bearing. Along with that knowledge on Breast Feeding was not given Importance at early stages of Child's development, which then became the Major reason of their Child being a Target of Malnutrition.

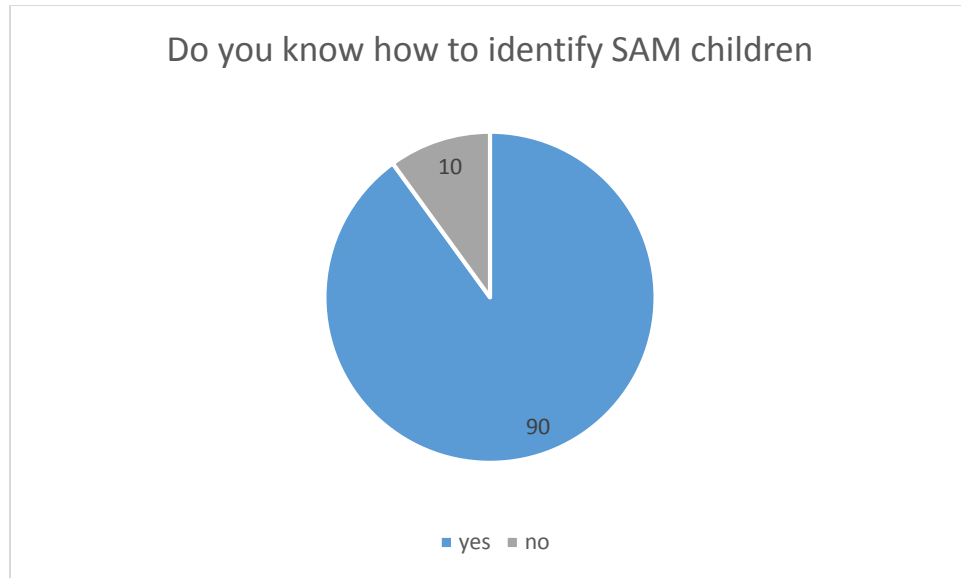
3. Chart depicting the delay in seeking the treatment



This chart shows the major reason of delay in seeking the treatment may be attributed to the low awareness among population. As people are not even aware of the ailment they do not seek any treatment for it. Other main reason is seeking traditional or home remedies. And a small fraction may be attributed to the presence of more children which hampers the proper care that should be given.

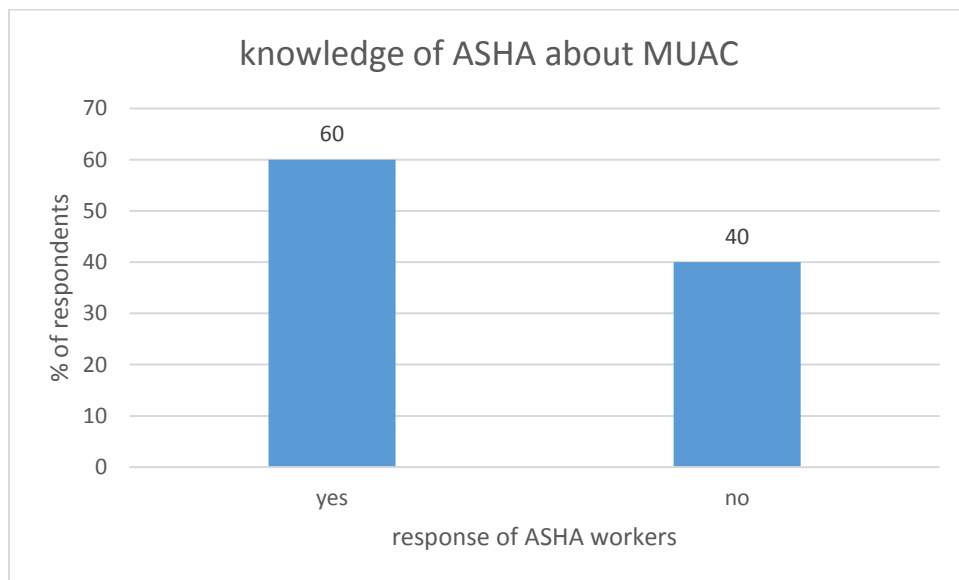
➤ Knowledge

4. Chart depicting the knowledge of ASHA workers about identification of SAM children



While 90% of the ASHA workers knew the criteria to identify SAM children 10% were those who did not know it.

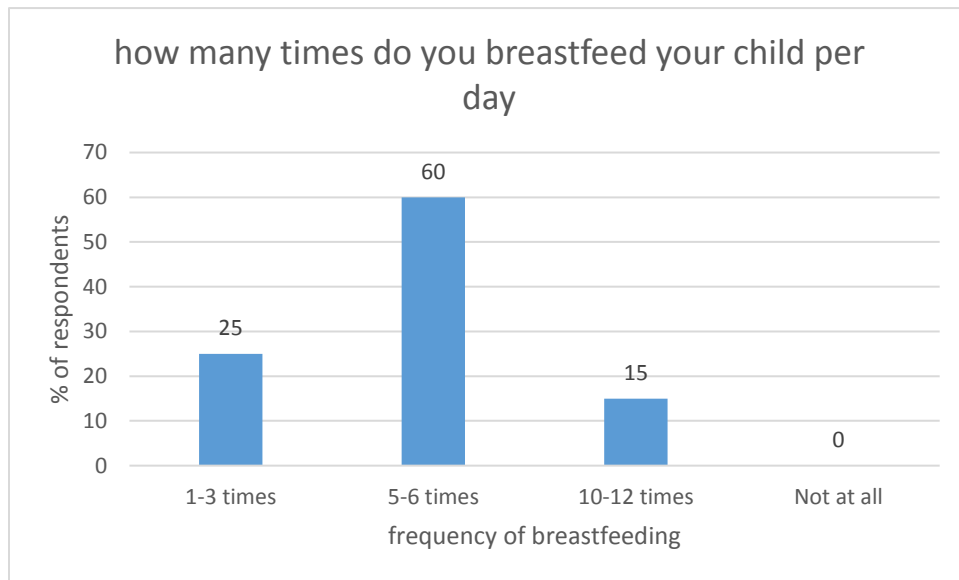
5. Chart depicting the knowledge of ASHA workers about how to measure MUAC



Majority of the workers knew about the measurement of MUAC. They could correctly measure the MUAC with some exceptions.

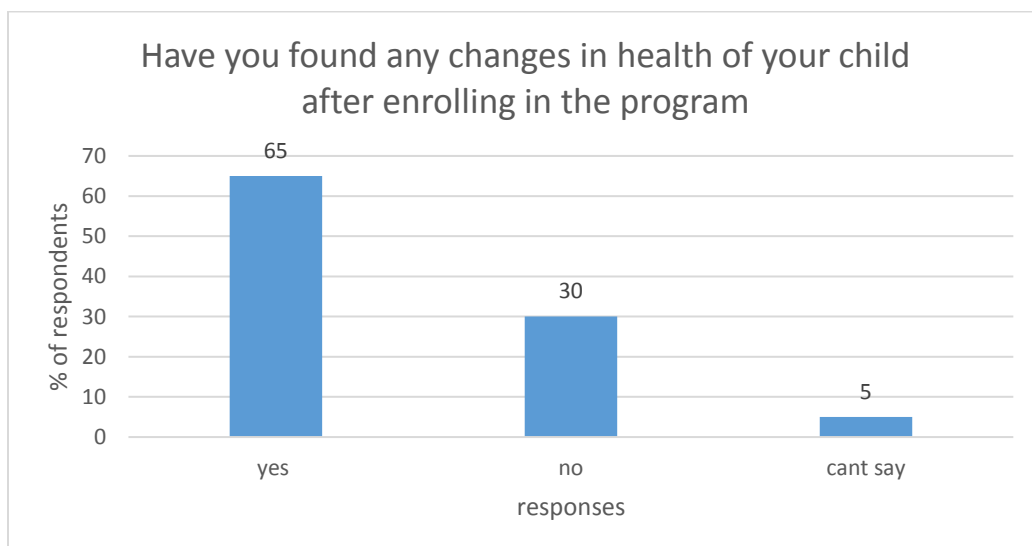
PRACTICES

6. Chart depicting the frequency of breastfeeding by mother



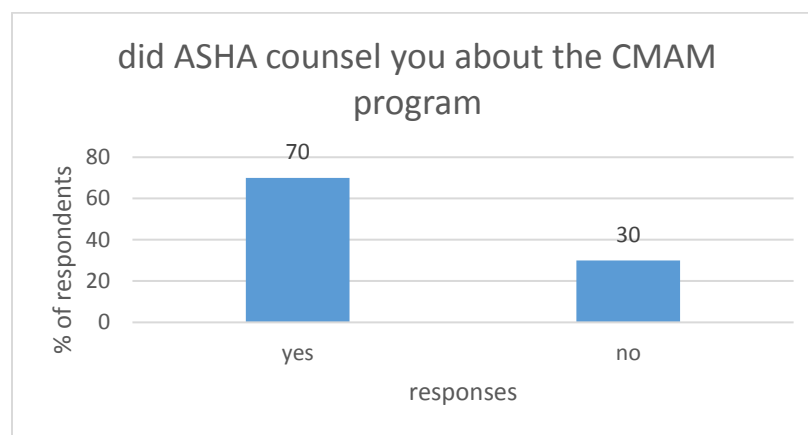
Around 60% of mothers responded about frequency of breastfeeding to be 5-6 times a day. While 25% said that they breastfeed their child 1-3 times a day. And around 15% said that they breastfeed their child 10-12 times a day.

7. Chart depicting the response of parents regarding health of their child after enrolment in CMAM program



Majority of the parents gave a positive response about the health of their child after enrolling in the program. While around 15 % were not sure about the health of their child.

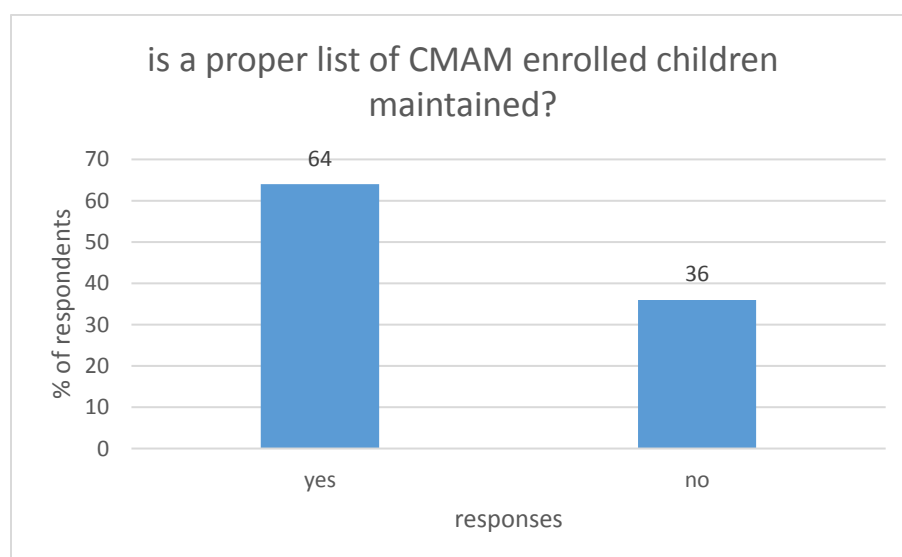
8. Chart depicting whether parents were counselled by ASHA or not



Around 70% of parents were counselled by the ASHA for the CMAM program.

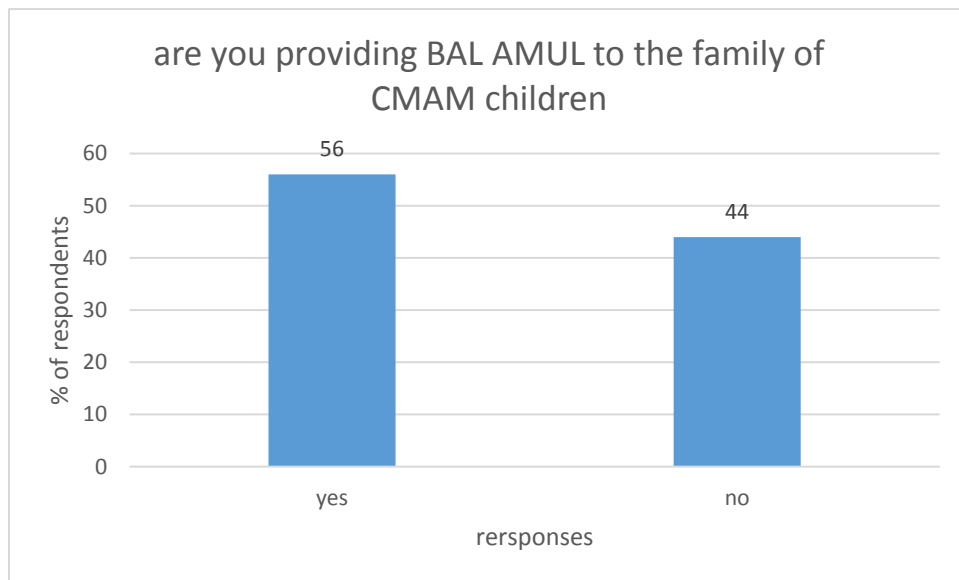
Practice (ASHA)

9. Chart depicting whether a proper line list was maintained or not

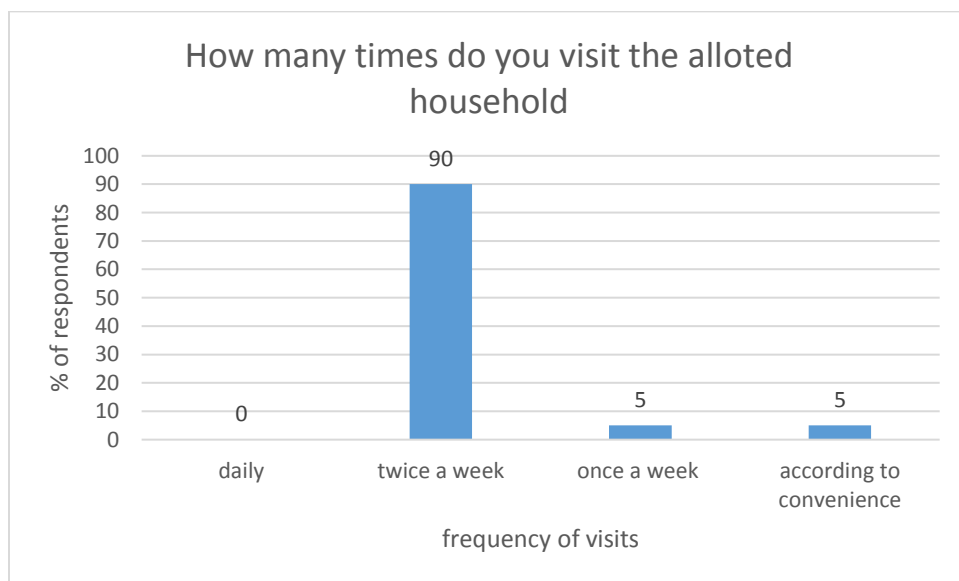


Around 85% of ASHA workers maintained a proper list of CMAM children while in 15% cases a proper line list was found to be missing.

10. Chart depicting whether is ASHA providing the “BAL AMUL” to the families of the CMAM children

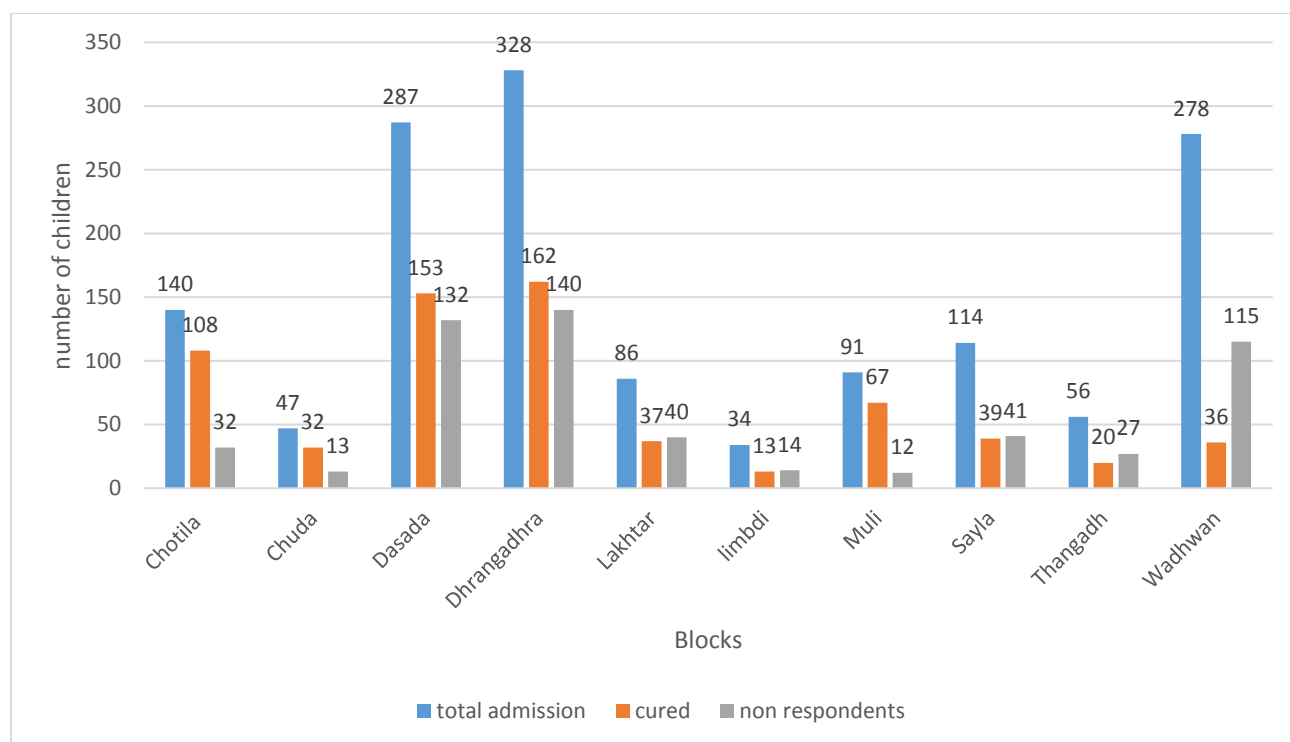


11. Chart depicting the frequency of visits by ASHA workers



Around 90% of the Asha workers visit households twice a week

Status of CMAM enrolments from may 2016 to may 2017 in surendranagar district



VII. Discussion

Analysis of the results was done and it was found that

Around 62% of the parents had a knowledge about what malnutrition is while 38% were unaware of the condition.

About 75% of the parents told that they were guided by ASHA for the enrolment in the CMAM program.

The main reason for the delay in seeking the treatment may be attributed to low awareness among the population which is in around 60% of the cases while around 25% of the respondents said that delay was due to seeking home remedies.

About 60% of the ASHA workers had a good knowledge about how to measure MUAC. While 40% could not measure MUAC properly when they were asked to do so.

90% of ASHA workers knew the criteria for identifying the SAM children.

60% of the mothers breastfeed their children 5-6 times a day.

65% of the parents said that the health of their children have improved after the enrolment in the program.

About 70% of the parents said that they were counselled by the ASHA workers for the treatment of their child. While 30% gave a negative response.

When it comes to maintenance of proper line list of CMAM children 64% of the ASHA had maintained a proper line list while rest did not have a proper line list. But during follow up visits the weight wasn't updated in e-mamta which hampers the knowledge of improvement in health status of CMAM children.

56% of ASHA workers were providing "BAL AMUL" to the families of CMAM children while 44% were not. And it was found that Bal amul was not given according to the e-mamta list of cmam children. So it isn't provided to all the CMAM children in required amount. There was a proper supply of the BAL AMUL but a proper stock register wasn't maintained.

From the secondary data it is seen that Dhrangadhra block had the maximum number of total admissions from May 2016 to May 2017 with 328 admissions out of which 162 were cured and the cure rate is 54% while 140 were the non-respondents which is 46% of the total.

Wadhwan block recorded a total of 278 admissions out of which 36 were fully cured while 115 were non respondents. Cure rate is 24%.

VIII. Conclusion

The study aimed to assess the overall functioning of CMAM programme and its effectiveness in improving overall health status of SAM children. It is evident from the results and discussion that there is lack of awareness about the problem and inefficient utilization of resources. There are gaps in the knowledge of ASHA workers about the program which is a big concern. Moreover the practices are not followed the way they should be. There is a high dropout rate which is because of low awareness.

IX. RECOMMENDATIONS/SUGGESTIONS:

Based on the project work:

1 Extensive Training Modules should be made which can teach the ASHAs and ANMs on counselling part and the Mothers on their child's Health and on Breastfeeding knowledge, related to Importance of First Milk

3. The only way to guarantee Development of the Public Health is to focus on the systematic and sustainable solutions from the community itself.

Based on the Programme understanding at State Level:

1.Strengthen Community Mobilisation : If community is unaware about the services provided, they will not utilise it to the fullest. Who are the target population, where to get the access from and what are the benefits will be unexplored by them. This confusion will act as threats which will then not convince others too to take the advantage. A community mobilisation strategy should be planned and implemented before the start of treatment activities in the health facilities.

Connecting with them at their door steps may not be possible everytime but what connects them can be thought of where communication mobilisation can be planned out.

Various Community Mobilisation are suggested :

1. Audio and Video plays at Ration shops, while villagers wait in a queue.
2. Nukad natak by Health volunteers and social personnel's on weekends.
3. Preliminary meetings with community leaders could be held and enlist their support to mobilize community participation.
4. Radio is extensively used in villages as a source of Information, Radio audio can be a better option.
5. Male members should be made accountable as they are generally the decision makers in the village settings. Counselling done for them could be an asset for the families health.

References

1. NRC guidelines
Source : NRHM Gujarat (2012). “*Guidelines for management of SAM children in nutrition rehabilitation center*”.
2. Ashworth A, Chopra M, McCoy D, Sanders D, Jackson D, Karaolis N, et al. WHO guidelines for management of severe malnutrition in rural South African hospitals: effect on case fatality and the influence of operational factors. *Lancet*. 2004;363:1110-5.
3. Deen JL, Funk M, Guevara VC, Saloojee H, Doe JY, Palmer A, Weber MW. Implementation of WHO guidelines on management of severe malnutrition in hospitals in Africa. *Bull World Health Org*. 2003;81:237-43.
4. Bhutta ZA, Ahmed T, Black RE, Cousens S, Dewey K, Giugliani E, et al. *Maternal and Child Undernutrition Study Group. What works? Interventions for maternal and child undernutrition and survival*. *Lancet*. 2008;371:417-40.
5. Kapil U & Sareen N. *Management of children with severe acute malnutrition*. *Indian Pediatr*. 2014 Jul;51(7):587-8.
6. NFHS 3, 2006. Ministry of Health and Family Welfare, Government of India. *National Family Health Survey (NFHS-3), 2005-2006*. Mumbai, India: International Institute of Population Sciences.
7. Singh K, Badgaiyan N, Ranjan A, Dixit HO, Kaushik A, Kushwaha KP, Aguayo VM. *Management of children with severe acute malnutrition: experience of Nutrition Rehabilitation Centers in Uttar Pradesh, India*. *Indian Pediatr*. 2014 Jan;51(1):21-5
8. Subramanyam MA, Kawachi I, Berkman LF & Subramanian SV. *Is Economic Growth Associated with Reduction in Child Undernutrition in India?*, *PloS Medicine*. March 2011, vol 8, issue 3.
9. Taneja G, Dixit S, Khatri A, Yesikar V, Raghunath D & Chourasiya S. *A study to evaluate the effect of nutritional intervention measures on admitted children in selected nutrition rehabilitation centers of Indore and Ujjain divisions of the State of Madhya Pradesh (India)*. *Indian J Community Med*. 2012 Apr;37(2):107-15. doi: 10.4103/0970-0218.96096
10. UNICEF 2012. *UNICEF-WHO-World Bank Joint Child Malnutrition Estimates*. (UNICEF, New York; WHO, Geneva; The World Bank, Washington, DC; 2012

1	Do you know what malnutrition is ?	• Yes • No
2	Do you think treatment of malnutrition is necessary ?	• Yes • no
3	How did you come to know that your child is malnourished ?	• Through ASHA • During MCH contacts • Know about it themselves • Through hospital
4	What motivated you to enrol your kid for the CMAM programme?	• ASHA • They themselves • Some other person • A family member • Some other health official
5	What are the reasons for Malnutrition?	• Early Marriage • Early Child bearing • Many children to feed on • Non Exclusive Breast Feeding • Lack of timely introduction of

		Complementary Feeding • No Food • Ignorance about Malnutrition • All of the above Others.....
6	How to identify malnutrition in a child	• Weight loss • Pitting oedema • MUAC • Stunted growth
7	Why there was a delay before, in seeking treatment for malnutrition?	• Other childrens to take care of • Daily Chores at homes • Seeking traditional treatment/Home remedies • Low Awareness • All of the Above Others.....
8	Do you think treating malnutrition will improve the health of your child ?	• Yes • no

9	Was counselling done by ASHA about the treatment ?	• Yes • No
10	What were your expectations from this programme?	• Healthy Child • Free from Diseases • No expectations Free food /Monetary funds

Questions related to Knowledge(ASHA)

1	Do you know about CMAM programme ?	• Yes • No
2	Do you know how to identify SAM children ?	• Yes • No
3	Do you know what MUAC stands for?	• Middle Upper arm Circumference • Mid Upper Arm Circumference • All the Above • Don't Know
4	What is the value of Mid Upper Arm Circumference at discharge of child from programme?	• 11.5 • 12.5 • 12 • Don't Know
5	Do you know how to measure MUAC?	• Yes • No
6	Do you know how to measure weight correctly?	• Yes • No
7	Do you know how to measure weight for length/height from reference table?	• Yes • no
8	What food items you suggest to the parents to feed their children at home.	• Dal/Roti • Dal/Roti/Ghee

		• Daliya • Milk • Vegetables and Fruits • All the Above • None of the Above
9	Do you know the criteria for enrolling the SAM child in CMTC and CMAM programme?	• Yes • no
10	Do you know what food is to be given in CMAM programme to the child ?	• yes • no

Question related to practices (parents)

1	Have you enrolled your child for the CMAM programme or in CMTC ?	• yes • no
2	If no, what are the reasons?	• It is not a big problem • No trust in govt programme • It can get cured of its own • An alternate treatment can be given • Bad behaviour of govt staff • Nobody guided about the treatment
3	If yes, have you found any change in Health of your child?	• Yes • No • Cant say
4	Did ASHA counsel you about the CMAM programme ?	• Yes • no
5	Did it help you to improve the health of your child?	• Yes • No
6	Did ASHA told you about the diet ?	• Yes • no

7	Was a proper follow up done by ASHA?	• Yes • no
8	What is the impact of this programme on eating habits of your child?	• Eating by their own when served • Asks for meal • Force him/her to eat • Does not Eat at all
9	How many times you breastfeed your child per day?	• 1-3 times • 5-6 times • 10-12 times • Not at all
10	Do you currently breastfeed?	• Yes • no
11	If No, than how old was your child when you stopped breastfeeding	• 2 months • 6 months • 9 months • 1year
12	If No, than who suggested you to stop breastfeed?	• By oneself • Mother in Law • Husband • Mother • Relatives • No body

Questions related to practices(ASHA)

1	Do you maintain proper list of CMAM enrolled children ?	• Yes • no
2	Do you go for proper follow-ups ?	• yes • no
3	Are you providing the “ Bal Amul” to the families of the CMAM children?	• Yes • No
4	Is there proper supply of “Bal Amul” ?	• Yes • No
5	How many times do you visit the allotted household?	• Daily • Twice a week • Once a week • Visit according to Convenience
6	Is proper community mobilisation being done?	• Yes • No
7	Do you communicate with ANM about Severely Acute Malnourished Children with Complications?	• Yes • No