A study on assessing the performance of Child Malnutrition and Treatment Centre Banaskantha, Gujarat

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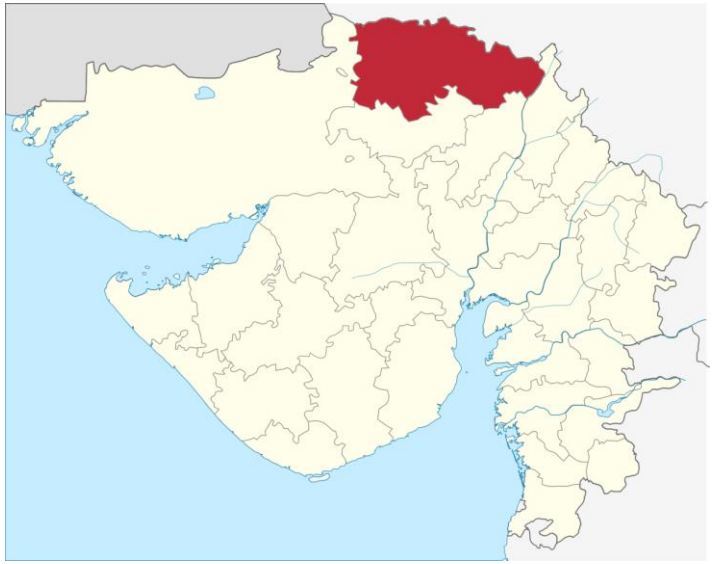
District Profile: Banaskantha

- Banaskantha is one of the 33 administrative district in the state of northern Gujarat.
- The District Headquarter is located in Palanpur.
- The Total Population of Banaskantha is 31,16,045
- The District comprises of 14 blocks.



Source: Census, 2011

Summary of Public Health Facility

- It is one of the largest district in Gujarat in terms of availability of public health facility.

S.No	Type of Public Institution	Number
1	Sub Centre	790
2	Primary Health Center	125
3	Community Health Center	26
4	Sub District Hospital	3
5	District Hospital	1

Background

- In India 20 per cent of children under five years of age suffer from wasting due to acute under nutrition. More than one third of the world's children who are wasted live in India.
- Forty three per cent of Indian children under five years are underweight and 48 per cent (i.e. 61 million children) are stunted due to chronic under nutrition, India accounts for more than 3 out of every 10 stunted children in the world.
- As per WHO and UNICEF in their joint statement have recommended two approaches to address the SAM children.

- Facility based care for children with SAM and medical complication
- Home based care for children with SAM and without medical complication

Comparison of Nutritional Status of Children in India, Gujarat and Banaskantha Source

S.No	Elements	India	Gujarat	Banaskantha
1	Children under 5 years who are stunted (height-for-age)	38.4%	38.5%	40.7%
2	Children under 5 years who are wasted (weight-for-height)	21.0%	26.4%	21.6%
3	Children under 5 years who are severely wasted (weight-for-height)	7.5%	9.5%	8.5%
4	Children under 5 years who are underweight (weight-for-age)	29.1%	39.3%	43.1%

Source: NFHS- 2015-16

Curative Aspects of Gujarat State Nutrition Mission

Tier- 1 Approach

- The Village Child Nutrition Center as "Bal Shaktim Kendra" at Anganwadi centers for malnourished children without any medical needs.

Tier-2 Approach

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

Tier-3 Approach

- Nutrition Rehabilitation Center as "Bal Sanjeevani Kendra" at District Hospital/ Medical College for malnourished children with significant medical care.

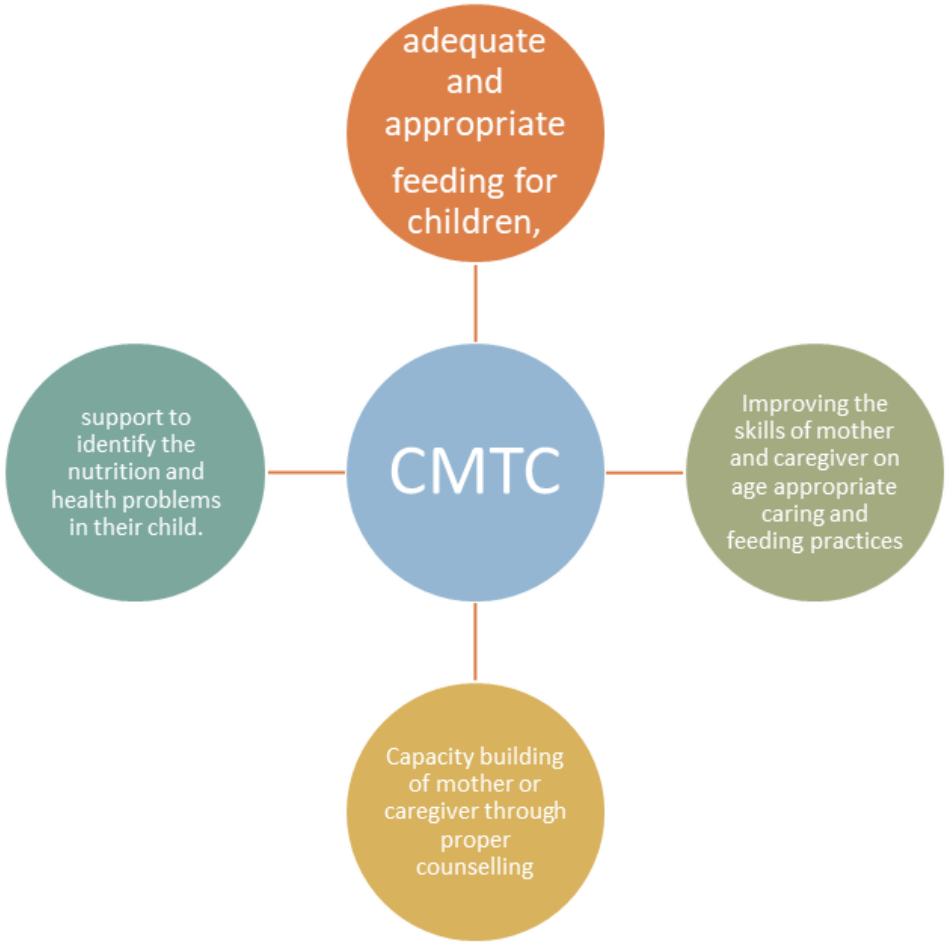
Source: nrhm.gujarat.gov.in

About Child Malnutrition and Treatment Center

- Child Malnutrition and Treatment Center is a unit in a health facility where children with Severe Acute Malnutrition (SAM) are admitted and managed.
- Components of CMTC:
- Patient Room
- Play room and counselling area
- Kitchen and food storage area
- Attached bathroom and bathroom facility for mother and children.

Other Elements of CMTC:

- Counselling on Feeding Practices
- Capacity building of mother and caregiver through proper counselling
- Counsel mother to identify the nutritional and other health problem
- Counselling on appropriate feeding for children



Research Question

- What is the performance compliance of Child Malnutrition and Treatment Center with respect to its key output indicator?

Rationale for the study

- As per in National Family Health Survey 2015-16 of Banaskantha district of Gujarat it looks quite evident that even after the establishment of 3 tier approach for integrated management of malnutrition, Severe Acute Malnutrition is still prevalent in the district i.e. almost 9% of the total children.
- A performance assessment of all the key indicator i.e. (stay at CMTC, Average weight gain and Outcome) will enable an effective and comprehensive evaluation of all the facilities. At the same time it will help district/state program manager to address the technical gaps in a better way.

Objective

- To assess the performance of Child Malnutrition and Treatment Center with respect to its following output key indicator:

- Stay at CMTC
- Average weight gain
- Outcome

Methodology

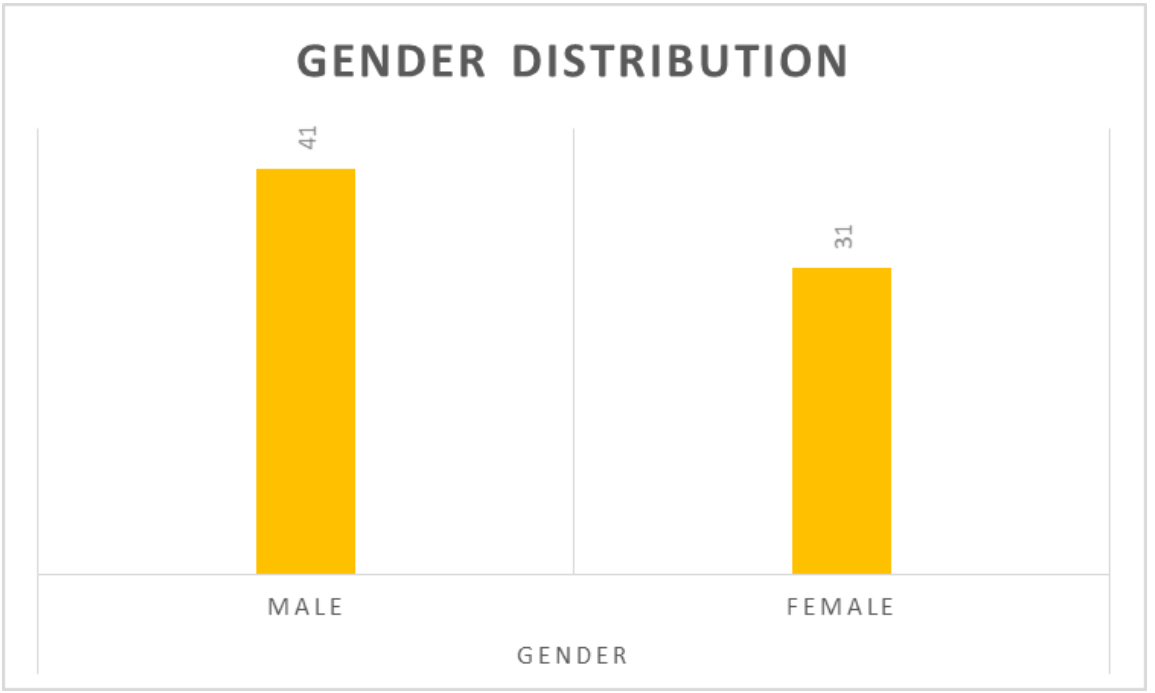
- **Study Design**: Follow up Prospective study
- 72 children were recruited from 14 CMTC during the month of February, 2018 and then followed up till their 3rd follow up.
- **Quantitative Study**- Performance Assessment using key output indicators
- **Study Location and Duration:** The study was conducted at each CMTC located across 14 blocks of the district from February, 2018 to April 2018. At the time of initiating this study Banaskantha has 14 CMTC and all were functional.

- **Sampling Technique:** Total Population Sampling technique was observed as all the children admitted during the study period were included**.**
- **Sample Size :** A sample size of 72 children aged 2-59 months were under taken for the study. (n=72)
- **Data Collection Tools and Technique**: A follow up records generated at the end of the study are to be assessed.
- **Data Collection Source**: Main source of data collection is primary by using pre-existing monthly follow up report with slight modification to meet the study's objective.

Acceptable level of performance indicator of CMTC

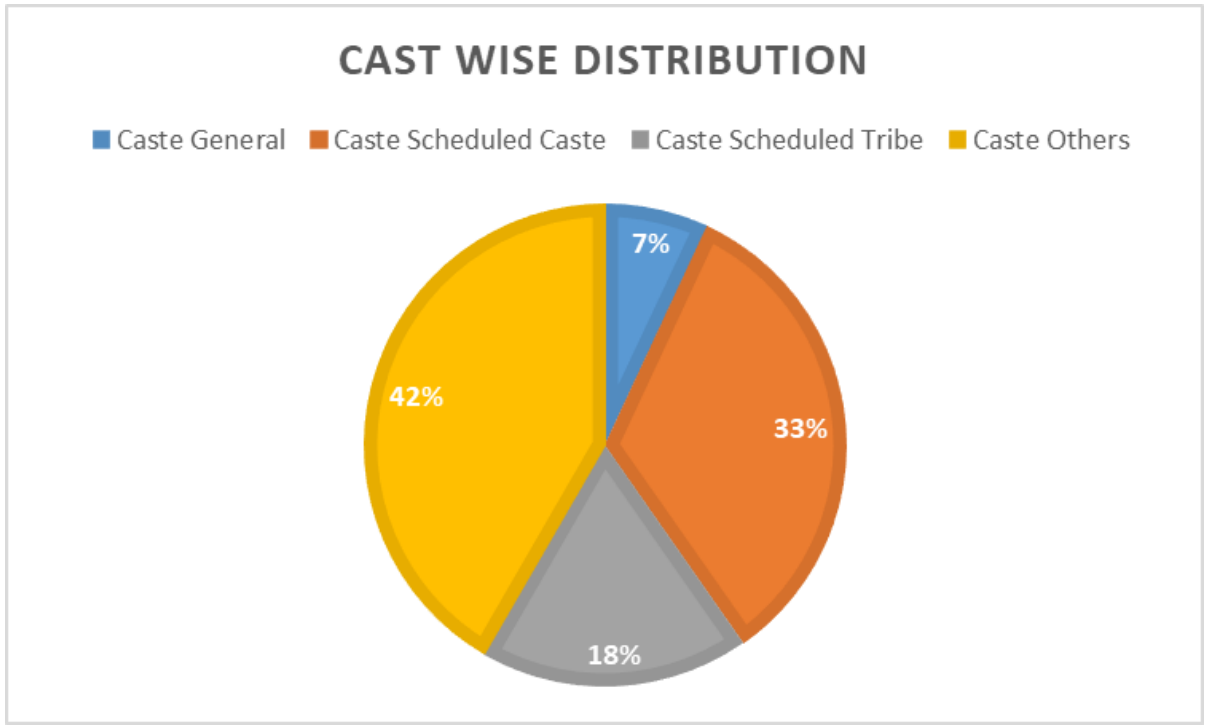
S.No	Elements	Standard	Remarks
1	Recovery Rate (at follow up)	> 75% beneficiaries recovered	Percentage of beneficiaries that have reached the discharge criteria (target weight gain of 15%) within the follow up period
2	Death Rate	< 5% beneficiaries died	Percentage of children who died within the reporting period
3	Defaulter Rate	< 15% beneficiaries have defaulted	Percentage of children that have not attended the CMTC for 3 consecutive days
4	Average Weight Gain	≥ 8gm is the average weight gain of all the beneficiaries	Sum of weight gains (g/kg/day) of all the children discharge during the month
5	Non Respondent Rate	< 10 % beneficiaries failed to respond to treatment	Percentage of patient who fails to respond to treatment
6	Length of Stay	1-4 week is the average length of stay for all the beneficiaries	Total inpatient day of care i.e. sum of each daily inpatient census for the time period examined.

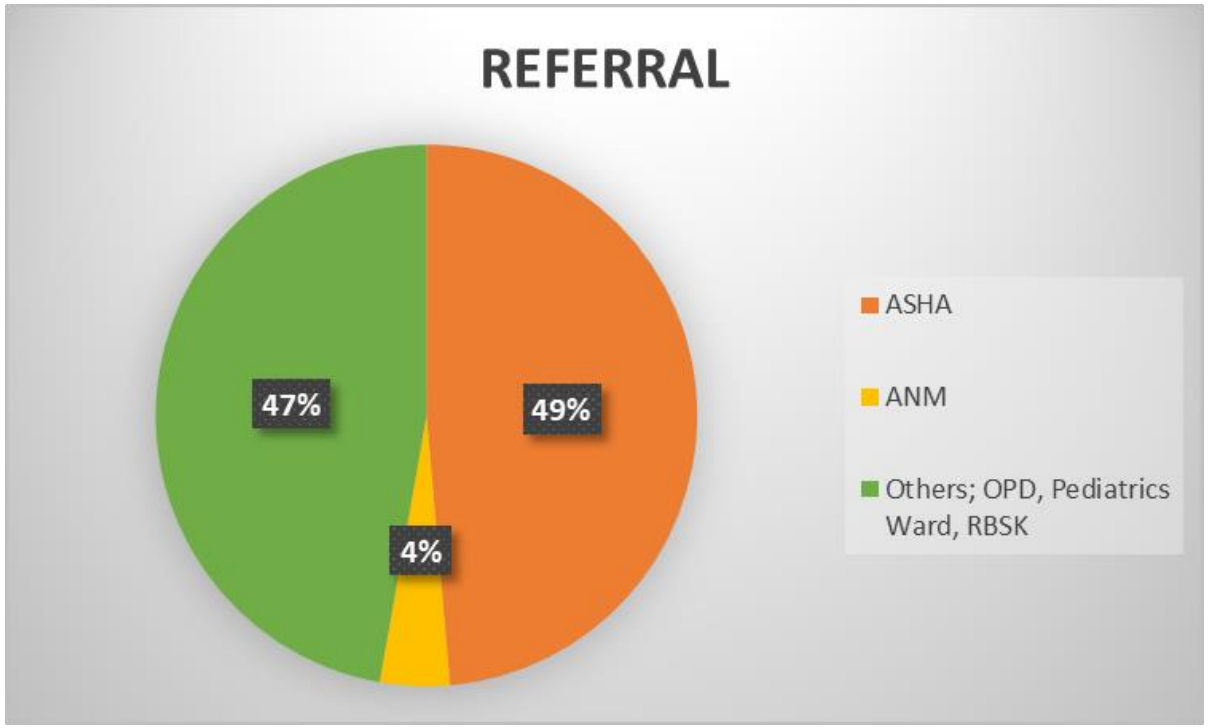
RESULTS



Age and Gender distribution of SAM Children (in numbers) shown in the graph.

RESULTS

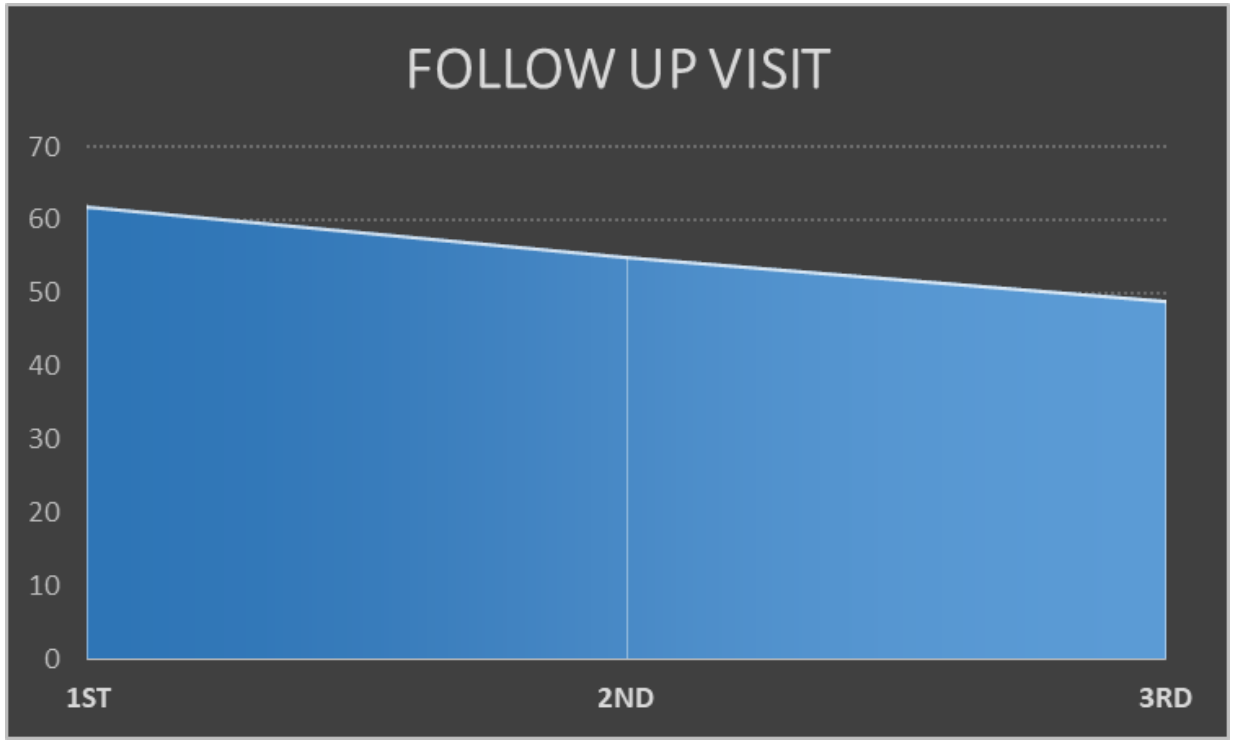




Caste and Referral wise distribution of SAM Children(in percentage) shown in pie chart.

Trend of follow up visits

- It can be clearly depict from the graph that there has been a continuous dip in the in each successive follow up.
- In the first follow up 62 children came to the CMTC.
- In the second and third follow up only 55 and 49 children respectively came for the 2nd and 3rd follow up.

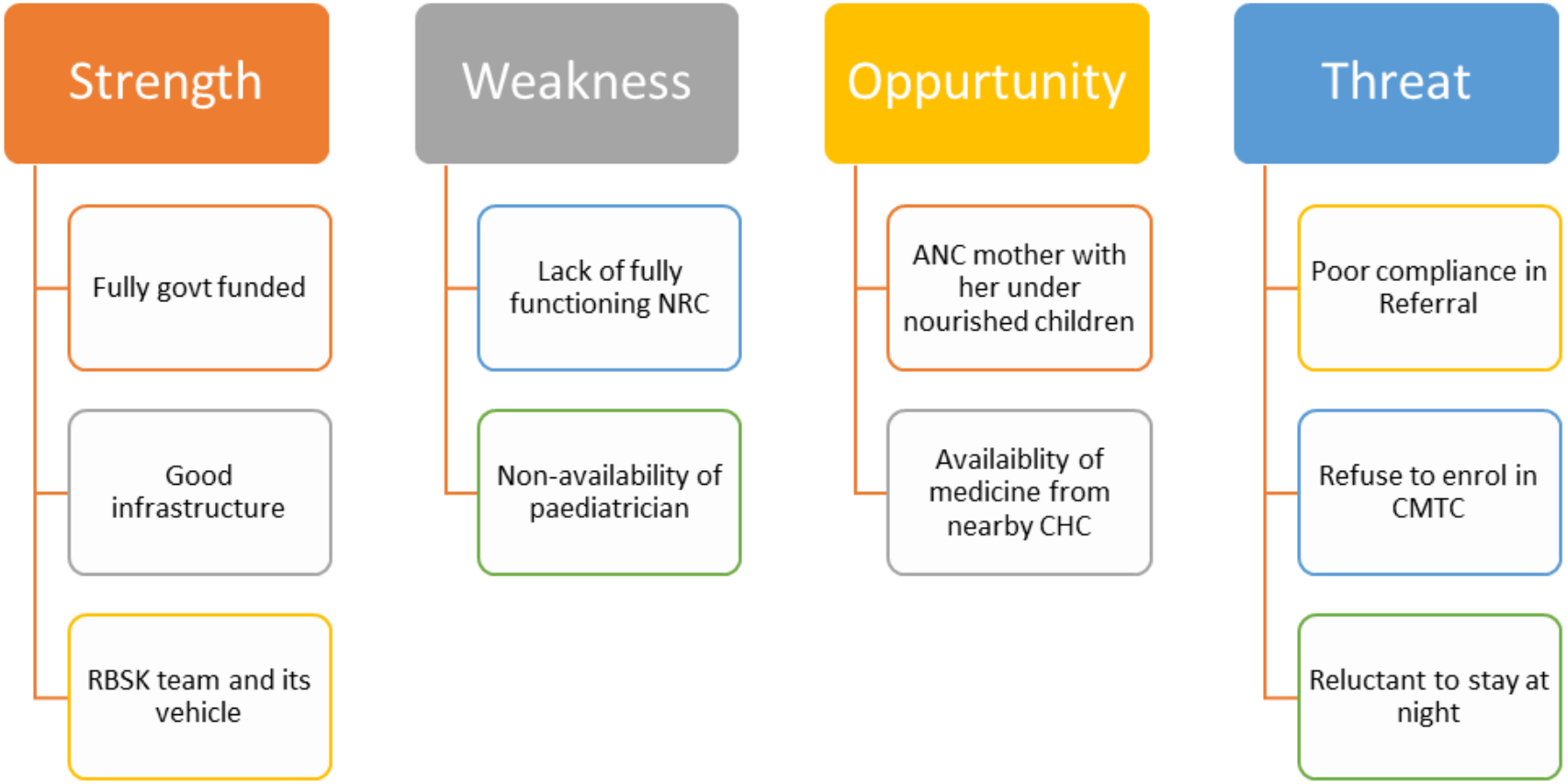


Trend of Follow up visit

Result of Key Output Indicator

S.No	Elements	Standard	Output
1	Recovery Rate (at follow up)	> 75% beneficiaries recovered	65.2%
2	Death Rate	< 5% beneficiaries died	0%
3	Defaulter Rate	< 15% beneficiaries have defaulted	8.33%
4	Average Weight Gain	≥ 8gm is the average weight gain of all the beneficiaries	10.36%
5	Non Respondent Rate	< 10 % beneficiaries failed to respond to treatment	25%
6	Length of Stay	1-4 week is the average length of stay for all the beneficiaries	2 weeks

SWOT ANALYSIS



SWOT Analysis of CMTC Performance

KEY FINDINGS

- Maximum admission rates in the CMTC was between the age group of 2-12 months (36%)
- Majority of the children admitted to the CMTC belonged to the marginalized groups.
- The findings are in accordance with that of NFHS-III, which states that children belonging to SC,ST and OBC and that those with illiterate mothers have the highest rate of malnutrition.
- ASHA proved to be a important link between community and health facility as highest no. of referral of SAM cases to CMTC was done by ASHA (33%).
- Average weight gain is 10.36g/kg/day which is well above the operational guideline of 8gm/kg/day

KEY FINDINGS

- CMTC has done a tremendous jobs by averting the death rate which is 0 percent.
- However, the non respondent rate is very i.e. 25 % which is way above than the acceptable level of indicators.

- The plausible reason could be-
- Wrong feed preparation
- Lack of monitoring: To keep a check on health status of SAM children.

CONCLUSION

- Strengthening our screening procedure both at the community and the facility level.
- There is a need to develop effective supervision and monitoring at the CMTC.
- The guidelines should be rigorously followed to ensure the correct formulation and timely administration of feed.
- Counsel the parents on how to prepare a feed and monitor the health of a child during follow up period.
- A consolidated effort from all the stakeholder of health at various level can definitely boost up the performance of the CMTC.

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THANK YOU