Performance Assessment of Nutrition Rehabilitation Centre in Narmada District of Gujarat

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Introduction

Nutrition Rehabilitation Center (NRC) is a unit in a health facility where children with Severe Acute Malnutrition (SAM) are admitted and managed. Children are admitted as per the defined admission criteria and provided with medical and nutritional therapeutic care. Once discharged from the NRC, the child continues to be in the Nutrition Rehabilitation program till she/he attains the defined discharge criteria from the Program (described in technical guidelines).

- **WHO and UNICEF in their joint statement have recommended two major approaches to address Children with SAM :**
- Facility/hospital-based care for children with SAM and medical complications
- Home/community-based care for children with SAM but without medical complications

District Profile of Narmada

- Narmada districts one of the 33 administrative districts in the state of Gujarat in **western India.**
- District Headquarter is located at : Rajpipla
- District population : 5,90,000
- District comprises of : 5 Talukas
- Total no of under 5 children : 57,784
- NRC is Located at : District Hospital

NFHS fact sheet 4(Nutrition status of Narmada District)

- 47.4 percent of children under 5 years of age are stunted (height-for-age)
- 35.8 percent of children under 5 years of age are wasted (Weight-for-height)
- 12.7 percent of children under 5 years of age are severely wasted (Weight-for- height)
- 53.6 percent of children under 5 years of age are underweight (Weight-for-age).

Rational of the study

- According to data shown in National Family Health Survey (2015-2016) of Narmada District of Gujarat, it looks clear that even with the establishment of a 3-tier approach for integrated management of malnutrition, Severe Acute Malnutrition is still prevalent in the community. A plausible explanation for this could be the ineffective implementation and monitoring of the program at NRC. Since its inception in 2013, supportive supervision and monitoring of NRC at Narmada has been executed only through monthly and quarterly reports comprising of line listed beneficiaries showing clinical improvement of individual casesA performance assessment of all the key indicators (as per NRHM guidelines) will enable an effective and comprehensive evaluation of the facility. At the same time, it will help the program officers to address the technical gaps in a better way.

Research Question

Q. What is the performance of Nutrition Rehabilitation Centre with respect to key output indicators in Narmada district of Gujrat in the year 2017-18 ?

Objective

- 1. To analyze the output indicators of Nutritional Rehabilitation Centers to assess its performance.

Methodology

- **Study Design** : cross – sectional descriptive study
- **Quantitative :** Performance assessment by using key performer indicator
- **Study location** :Narmada District , Gujarat
- **Study Duration** : feb 2018 to may 2018
- **Study population**: **:** Health Records of all the Children with Severe Acute Malnutrition admitted to the

NRC. (In the reporting period)

Inclusion criteria*:* Children aged 6-59 months having SAM fulfilling the following criteria: (a) bilateral pitting edema and/or (b) weight-for-height <–3 SD and/or (c) mid-Upper-arm circumference <115 mm.

Exclusion criteria*:* Patients discharged on request for personal and social reasons were excluded from the study.

Quantitative Study

➢ **Study subject**:

Unit of observation:

Health Records of all the Children with Severe Acute Malnutrition admitted to the NRC. (In the reporting period)

- **Sample size** : A sample size of 84 children was undertaken for the study. (n=84)

Sampling Technique

- Total Population Sampling technique was observed as all the children admitted to NRC

in the financial year 2017-2018 were included in the study.

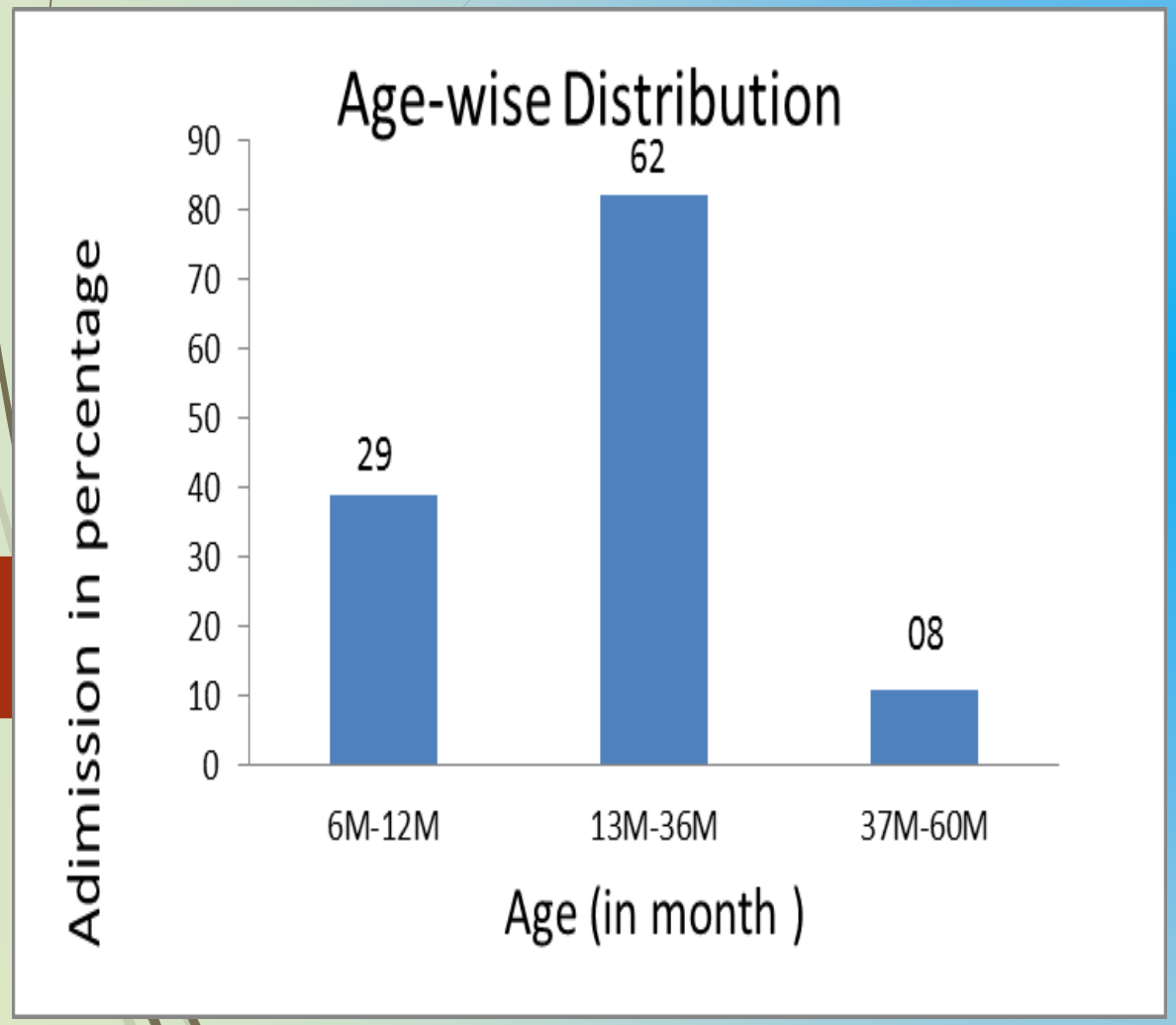
Data Collection Tools &Techniques :

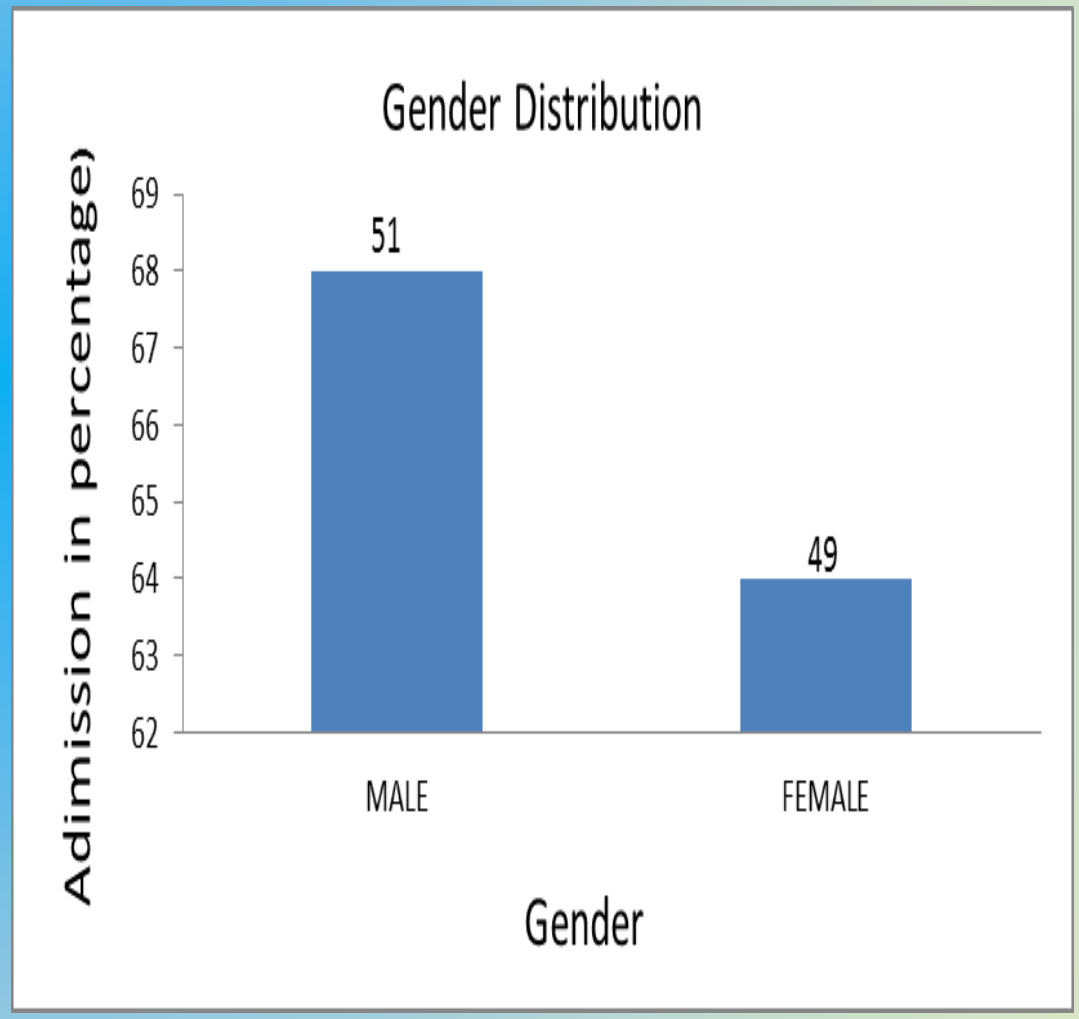
- Retrospective review of records of key elements forming performance output indicators that are to be assessed.
- Data collection sources

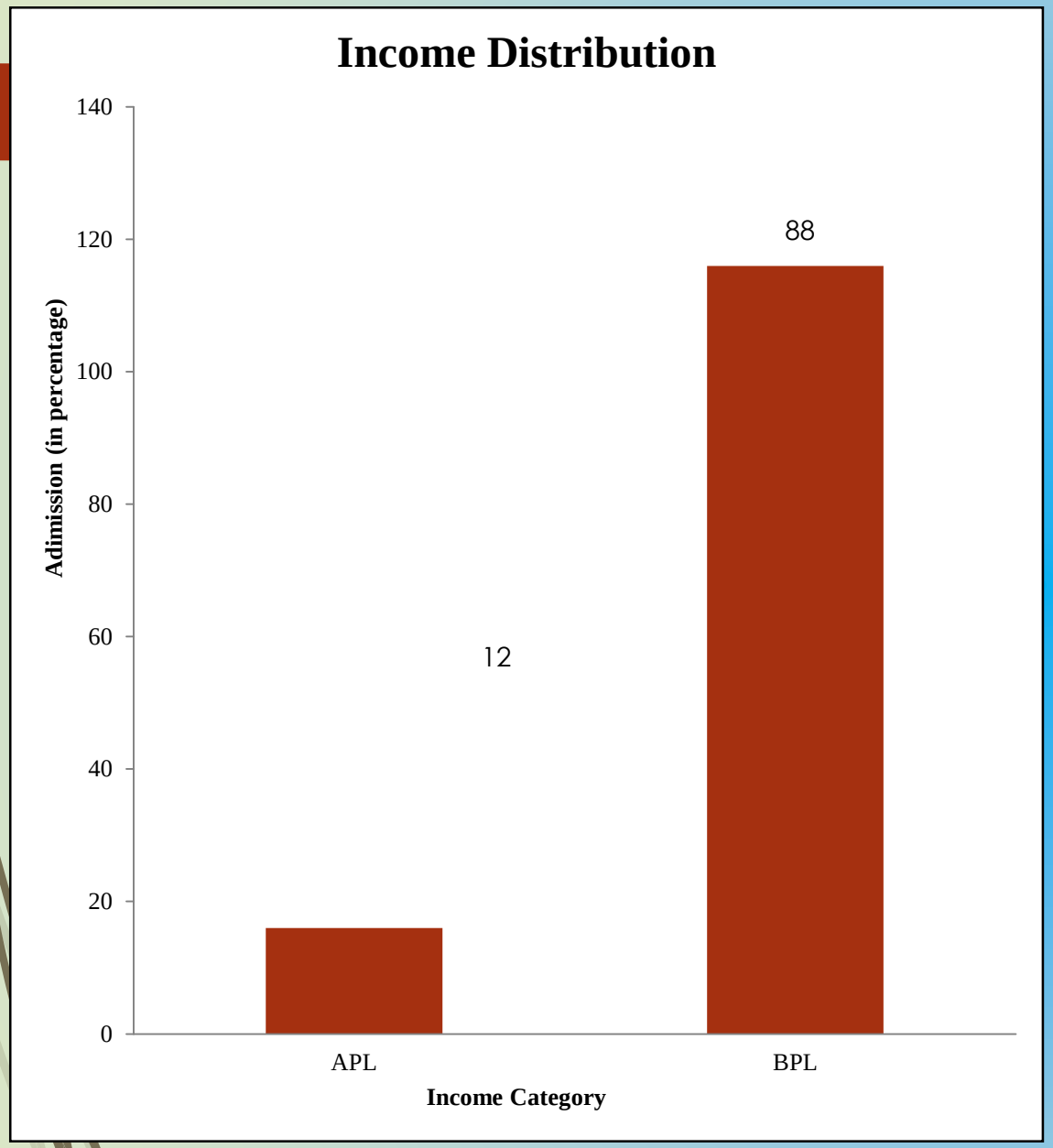
1. SAM Register
2. NRC Register
3. Admission and Discharge Register

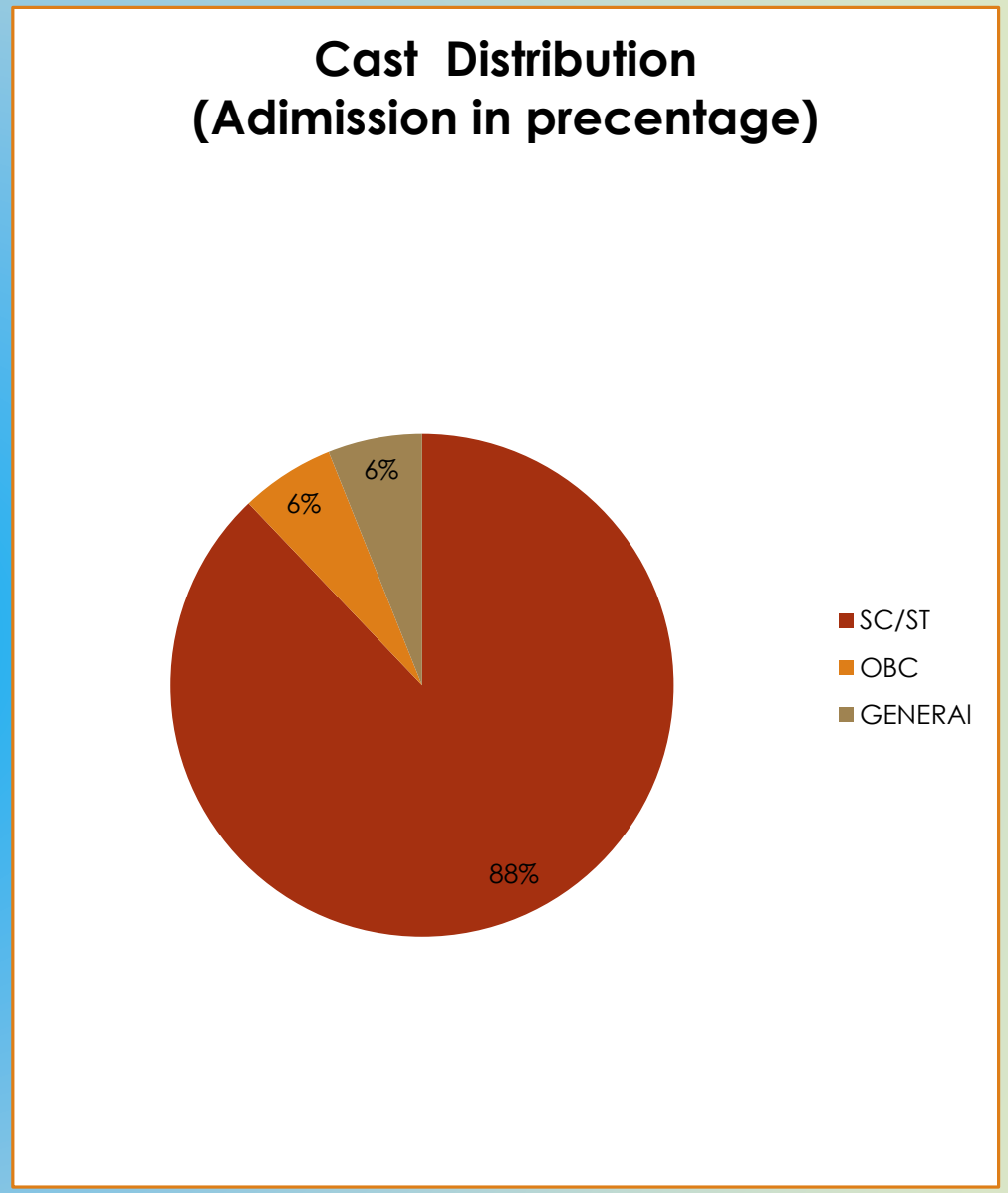
Results

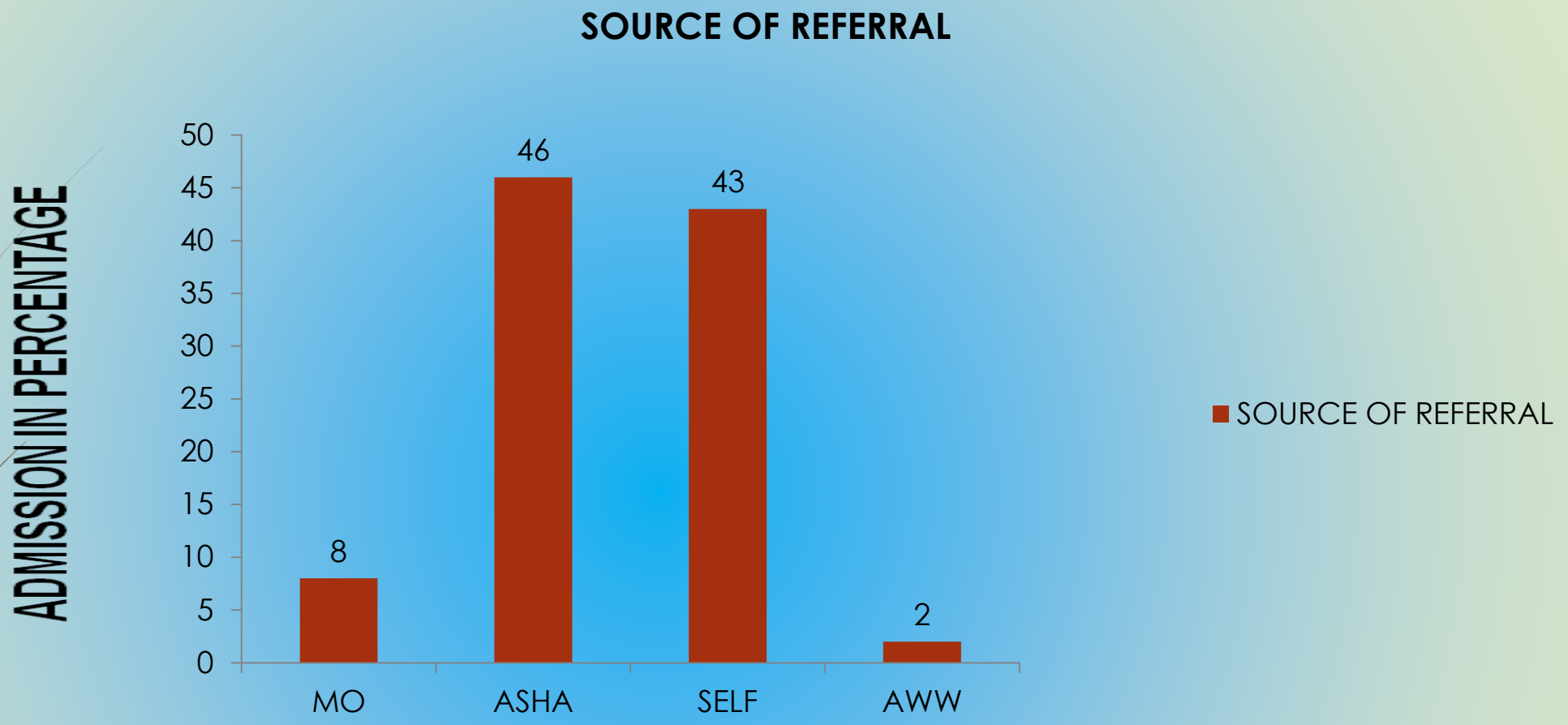
A. General Profile of the beneficiaries:

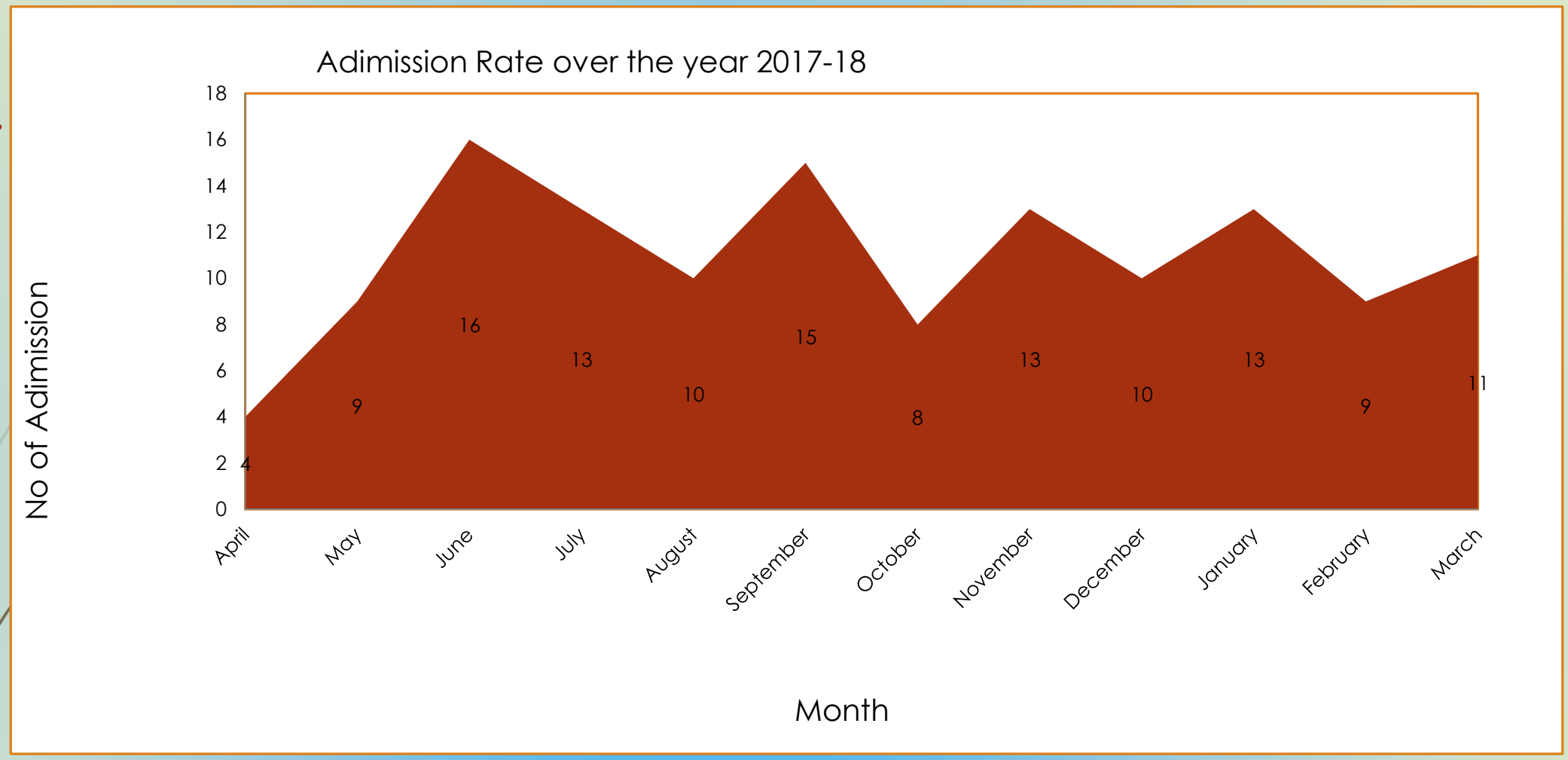


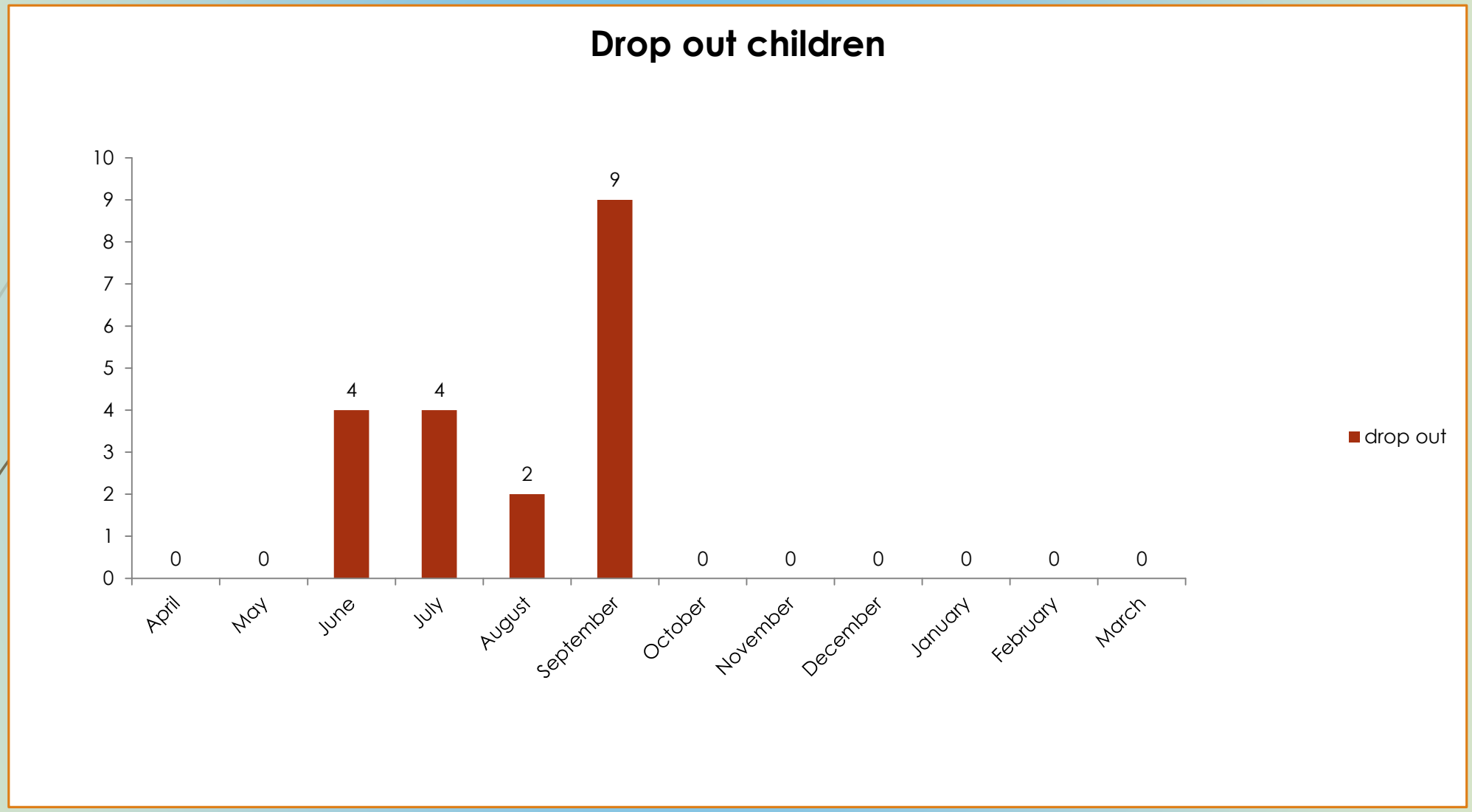



Income Distribution
140
120
100
80
60
40
20
0
Adimission (in percentage)
88
12
APL
BPL
Income Category


Cast Distribution
(Adimission in precentage)
6%
6%
88%
SC/ST
OBC
GENERAl


SOURCE OF REFERRAL
ADMISSION IN PERCENTAGE
50
45
40
35
30
25
20
15
10
5
0
8
46
43
2
MO
ASHA
SELF
AWW
SOURCE OF REFERRAL


Adimission Rate over the year 2017-18
No of Adimission
Month
18
16
14
12
10
8
6
4
2
0
4
9
16
13
10
15
8
13
10
13
9
11
April
May
June
July
August
September
October
November
December
January
February
March


Drop out children
10
9
8
7
6
5
4
3
2
1
0
0
0
4
4
2
9
0
0
0
0
0
0
April
May
June
July
August
September
October
November
December
January
February
March
drop out

Performance Output Indicator

s.no	Element	Indicator value	Standard value	Remarks (as per standard)
1	Recovery rate (at discharge)	27%	>75%	The recovery rate is very poor as it is far below the standard criteria. Only one – fourth of the beneficiaries have met the "target weight gain" criteria
2	Recovery rate (at last follow up)	31%	>75%	The recovery rate is very poor as it is far below the standard criteria. Only one – fourth of the beneficiaries have met the "target weight gain" criteria even at the last follow up
3	Death Rate/ case fatality rate	NIL	<5%	The NRC has shown a remarkable performance to avert deaths within the facility
4	Defaulter rate	14%	<15%	The defaulter rate is less as it meets the standard criteria.

5	Average weight gain	6.0g/kg/day	≥ 8g is the average weight gain of all the beneficiaries	Average weight gain is poor. It reflects the inadequacy of the facility to fulfill standard treatment protocols
6	Bed occupancy rate	45%	No standard for this indicator	The bed occupancy rate is very poor. At any point of time7 beds a. Only 3 are occupied.
7	Relapse rate	1%	<10%	The relapse rate is excellent as it fulfill criteria. However, the tracking of beneficiaries post discharge and follow_ up requires further exploration
8	Medical transfer rate	NIL	< 15% beneficiaries have been transferred due to medical complications	The medical transfer rate is good as it meets the standard criteria.

9	**SAM Criteria at Admission (All the three) (MUAC,Z score & illness)**	**50.58%**	**> 95 % beneficiaries fulfill atleast 2 (out of 3) criteria at the time of admission**	**Almost half of the respondent do not fulfill the criteria for MUAC >11.5 cm.**
10	SAM Criteria at discharge (All the three) (MUAC,Z score & illness	9.33%	< 5% beneficiaries still fulfill all the SAM criteria	Almost one –tenth of the beneficiary fulfill (atleast 2 out of the 3) SAM Criteria (of admission) at the time of discharge.this means that almost 90 percent of the beneficiary have shown a satisfying level of improvement during the stay.
11	Follow –up rate	100%		The follow rate is

Good practices of the NRC

1 Despite being a tribal district with remote and hard to reach areas, all the facilities are functional and performing well.

2 The hygiene practices at all facilities is well maintained according to the indicators provided by the guidelines provided by Govt. of India.

3. Staff members available in NRC have been trained and have the appropriate knowledge of the SAM protocols and correct method of anthropometric measurements.

4. Behavior of staff members towards their respective work is appreciable, as staff is motivated and wants to improve further.

CONCLUSION

- There is no doubt to the fact that Nutrition Rehabilitation Centre can play a very vital role in reducing the burden of morbidity and mortality associated with Malnutrition on the community, provided active screening and prompt treatment is done well.. For this to happen, it becomes important to strengthen our screening procedures, both at the community and facility level. This study makes us realize the importance of engagement of field level staff in active screening of SAM cases. The field level staff should be periodically sensitized regarding the program and its associated benefits. Once the screening and referral procedures are taken care of, it becomes necessary to develop effective strategies for supportive supervision and monitoring at the facility level. The "low" Indicator values of Recovery Rates and Average Weight Gain reflects the inadequacy of the treatment methods being offered at the facility. To address this issue, the operational guidelines given by NRHM should be religiously followed to ensure correct formulation and timely administration of feeds. Also, the staff at the facility should properly counsel the parent on how to prepare feeds and monitor the health of the child during the "Follow-up "phase.The authorities that have the power to bring transformation as well as the key policy makers should take keen interest in developing innovative approaches to address various barriers and challenges affecting successful implementation of the program at NRC. At the same time, they should be actively involved in solving the various managerial issues related to finance and Human Resources that often go unnoticed and neglected.The budget allocated to NRC under NRHM should be conserved and used rationally.Thus, in conclusion, we can say that,with consolidated efforts from all the key stakeholders at various levels of healthcare system, Nutrition Rehabilitation CentresBe established as an effective intervention to curb the menace of Malnutrition and its associated complications and render good health and well-being to all its beneficiaries.

REFERENCES

1. Guidelines for Management of Severe Acute Malnutrition (SAM) Children at Nutrition Rehabilitation Centre, National Rural Health Mission, Ministry of Health & Family Welfare, Government of Gujarat, 2012. P.5-6.

2. District Fact Sheet, Narmada, Gujarat, National Family Health Survey, 2015-2016, Indian Institute of Population Sciences.2015-2016.P 87-89.

3. Taneja G, Dixit S, Khatri A K, Yesikar V, Raghunath D, Chourasia S. A study to evaluate the effect of nutritional intervention mesasures on admitted children in selected nutritional rehabilitation centres of Indore and Ujjain divisions of the state of Madhya Pradesh (India). Indian J Community Med 2012;37(3):104-15

4. Colecraft EK, Marquis GS, Bartolucci AA, Pulley L, Owusu WB, Maetz HM. A longitudinal assessment of the diet and growth of malnourished children participating in nutrition rehabilitation centres in Accra, Ghana. Public HealthNutr 2004;7:487-94.

5. Grobler-Tanner C, Collins S. Community therapeutic care (CTC): A new approach to managing acute malnutrition in emergencies and beyond. Washington DC: Food and Nutrition Technical Assistance Project, Academy for Educational Development; 2004.

6. Kadam DD, Kulk. arni RN, Subramanium P. Anthropometric and socio-economic profile of children referred to nutritional rehabilitation centre. Indian Pract2001;54:476-85.

7. Beghin ID, Viteri FE. Nutritional rehabilitation centres: An evaluation of their performance. J Trop Pediatr Environ Child Health 1973;19:403-16.

8. International Institute of Population Sciences. National Family Health Survey -3.

Mumbai: IIPS, ORC Macro; 2005.

9. Kumar R, Singh J, Joshi K, Singh HP, Bijesh S. Hospitalized Children with

Severe Acute Malnutrition in Rewa District. Indian pediatrics August 2013[e- pub ahead of prints]:1-5

THANK YOU