

A Concurrent Evaluation of the Nutritional Status of Urban Children and Their Linkages to the Utilization of ICDS Scheme: A Study in the Guwahati City

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ABSTRACT

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INTRODUCTION

Nutrition plays a key role in physical, mental and emotional development of children and much emphasis has been given to provide good nutrition to growing populations especially in the formative years of life. Globally, more than one-third of child deaths are attributable to under nutrition.

The recently published National Family Health Survey (NFHS-5), by the Ministry of Health and Family Welfare data, shows that Assam is lagging behind in reaching and fulfilling its target to achieve a malnutrition free society. NFHS is a large-scale Health and Nutrition survey carried out by the Government of India and executed by the International Institute of Population Sciences (IIPS), Mumbai. The survey covers a wide range of indicators vital to assess the Health and Nutrition status of a given population. The survey takes place every four years and the latest is the **National Family Health Survey-6 (NFHS-6)**, conducted during 2023–24 and released by the Union Health Ministry on

May 29, 2026. It covered 679,238 households

Assam was already a high burden state in terms of nutrition indicators, as evident from the previous findings of the NFHS-4. Various studies conducted in different parts of the country have reported variation in the prevalence and improvement in malnutrition in ICDS blocks the utilization of ICDS scheme varies from place to place and depends on involvement of the community in the programme. Between 2016 and 2021, there were substantial changes in the quality of ICDS services provided.

The initiation of the POSHAN Abhiyaan (PA) in 2018 bolstered the ICDS, universalizing it and integrating it with other nutrition-focussed programmes for women and children (NITI Aayog, 2019). The PA also encompassed the National Early Childhood Care and Education policy introduced in 2013, which aimed at the holistic development of children aged 0–6 years. As part of the PA, investments were also made in the umbrella ICDS programme, which indeed Early

Childhood Care and Education with the National Crèche Scheme and Child Protection Scheme. Under the PA, the government implemented several other policy actions to strengthen the existing programmes (Ministry of Women and Child Development, 2013b). This included revising the cost norms for supplementary nutrition, with increased allocations sanctioned in September 2017 for beneficiaries of Anganwadi services under ICDS. Furthermore, incentives for frontline workers were enhanced. To strengthen growth monitoring and enhance decision-making, the government embraced technological advancements through the implementation of child mortality among children younger than 5 years of age (Blacket et al., 2013). In an effort to achieve the Sustainable Development Goals (SDGs), there is enhanced attention to all forms of malnutrition and this presents an opportune time to address undernutrition.

PROBLEM STATEMENT

A concurrent evaluation of the nutritional status of urban children and their linkages to the utilization of ICDS scheme: A study in the Guwahati city.

OBJECTIVES

1. Assess the nutritional status of children under six years of age.
2. Assess the pattern of utilization of nutritional aspects of ICDS services by the informant families

REVIEW OF LITERATURE

Das R, Bhattacharjee P (2015) conducted a cross-sectional study on utilization of ICDS scheme among 115 children below 6 years of age in an urban area of Agartala, Tripura. Data was collected by interview method by using structured questionnaire. The result depicted that 77% children have used any one of the services, 67% had taken supplementary nutrition and 28.10% had taken non formal preschool education, 17.40% have taken immunization, 30% had done health checkup, only 1% have gone

for referral and 22.60% have not gone to ICDS center.

Suganya E, Vrushabendra H.N, Srikanth S, Sudha V(2017) conducted a cross-sectional study on assessment of nutritional status and preference of nutritional supplements among Anganwadi children. The study was conducted among under 5 children in three randomly selected villages Puducherry. Out of 153 children, 59% children were under nourished. The prevalence of underweight, stunting and wasting were 28%, 28%, and 38.5% respectively. Moreover, 90% children had consumed hot cooked meal and only 10% had chose take home ration (THM).

METHODOLOGY

1. RESEARCH APPROACH - Quantitative study
2. RESEARCH DESIGN - cross sectional descriptive study
3. VARIABLES-

Research variables- nutritional status, utilization of ICDS services

Socio-demographic variables- age, gender, religion, caste, family type, family income, birth order, total no of children, education of parents, occupation of parents, food habit.

4. SETTING- the study was conducted in selected areas of Guwahati
5. POPULATION-In this study, the population are children under 6 years of age and their mothers.
6. TARGET POPULATION- children under 6 years of age and their mothers
7. ACCESSIBLE POPULATION- children under 6 years age's along with their mother under beltola and Hatigaon AWC.
8. SETTING- the study was conducted in 2 AWC namely, beltola and Hatigaon AWC.
9. SAMPLE SIZE- 36(pilot study)
10. SAMPLING TECHNIQUE- cluster technique

11. TOOLS- Part I consists of socio-demographic profile of children, Part-II and III consists of structured questionnaire
12. TECHNIQUE- Interview method
13. DATA ANALYSIS- descriptive statistics

Total	330	100
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FINDINGS AND INTERPRETATION

SECTION-I

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILDREN ACCORDING TO THEIR DEMOGRAPHIC VARIABLES

Age	frequency	percentage
2-3	182	55
3-4	99	30
5-6	49	15
Total	330	100

Sex	frequency	percentage
Male	178	54
Female	152	46

Religion	frequency	percentage
Hindu	255	77
Muslim	75	23
total	330	100

Birth order	frequency	percentage
1	106	32
2	198	60
3	26	8

Total no of children	frequency	percentage
1	114	35
2	155	47
>=3	61	18
total	330	100

Caste	frequency	percentage
SC	75	23
OBC	230	70
general	17	7
total	330	100

Type of family	frequency	percentage
Nuclear	131	40
Joint	177	54
Extended	22	6
Total	330	100

Family income	frequency	percentage
Rs 124489 - 249043	-	-
Rs 93381-	-	-

124488		
Rs 62273-93380	45	14
Rs 37325-62272	51	15
Rs 12445-37324	66	20
Rs≤12444	119	36
Rs ≤12444	49	15
total	330	100

total	330	100
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Occupation of father	frequency	percentage
Self employed	124	38
Government	143	43
Private sector	63	19
Total	330	100

Education of father	frequency	percentage
no formal education	27	8
primary	38	12
middle	103	31
high	99	30
HSLC and above	63	19
total	330	100

Occupation of mother	frequency	percentage
self employed	179	54
government	108	33
private sector	43	13
Total	330	100

Education of mother	frequency	percentage
No formal education	47	14
Primary	41	13
Middle	130	39
High	76	23
HSLC and above	36	11

Food habit	frequency	percentage
vegetarian	66	20
Non vegetarian	264	80
total	330	100

If non-veg, which month	frequency	percentage
9-12months	66	25
12 months	198	75
Total	264	100

SECTION-II

A. FREQUENCY AND PERCENTAGE DISTRIBUTION ACCORDING TO FEEDING AND DIETARY PRACTICES

Initiation of breast feeding	Frequency	Percentage(%)
Within 1 hour	243	74
More than 1 hour	87	26
Total	330	100

Exclusive breast feeding	Frequency	Percentage (%)
For six months	254	77
Less than 6 months	76	23
Total	330	100

Breast milk substitute	Frequency	Percentage (%)
Yes	292	88
No	38	12
Total	330	100

If yes, type of breast milk	Frequency	Percentage (%)
Animal milk	86	26

Formula	264	74
Total	330	100.0

Initiation of complementary feeding or semi-solid food	Frequency	Percentage (%)
Less than 6 months	72	22
6-9 months	258	78
Total	330	100

Initiation of solid food or family food	Frequency	Percentage (%)
9-12 months	281	85
Above 12 months	49	15
Total	330	100

Did you include green leafy vegetables in your baby's food?	Frequency	Percentage (%)
Yes	239	72
No	91	28
Total	330	100

How often you feed your child per day?	Frequency	Percentage (%)
Less than 3 times	70	21
3 times	177	54
More than 3 times	83	25
Total	330	100

**B. ASSESSMENT OF
NUTRITIONAL STATUS OF
CHILDREN BY USING
GOMEZ CLASSIFICATION**

Degree of malnutrition	frequency	Percentage (%)
Mild	131	40
Moderate	96	29
Normal	83	25
Severe	20	6
Total	330	100

SECTION-III

**FREQUENCY AND PERCENTAGE
DISTRIBUTION OF UTILIZATION
OF ICDS SERVICES**

Do you send your child to AWC regularly?	Frequency	Percentage (%)
Yes	296	90
No	34	10
Total	330	100

Reason for sending child to AWC	Frequency	Percentage (%)
For food	8	2
For education	163	49
For food and education	96	29
For overall development	63	20
Total	330	100

Supplementary nutrition received by the child?	Frequency	Percentage (%)
Yes	330	100

Place of consumption of SN	Frequency	Percentage (%)
At AWC	245	74
At home consumed by child alone	74	23
At home shared with others	11	3
Total	330	100

Quality of SN at AWC	Frequency	Percentage (%)
Not provided	16	5
Very good	94	28
Good	141	43
Average	79	24

AWW weigh your child	Frequency	Percentage (%)
Do not know	48	15
Every month	258	78
Every 2 month	8	2
Rarely	4	1
Do not weight	12	4
Total	330	100

Child's growth card ever shown to you?	Frequency	Percentage (%)
Yes	109	33
No	221	67
Total	330	100

AWW visited home for HNE	Frequency	Percentage (%)
Yes	86	26
No	244	74
Total	330	100

Mother's meeting held regularly	Frequency	Percentage (%)
Yes	250	76
No	80	24
Total	330	100

Do you attend meeting organized for mothers?	Frequency	Percentage (%)
Yes regularly	100	30
Yes sometimes	200	60
Do not attend	30	10
Total	330	100

Topics discussed in the last meeting	Frequency	Percentage (%)
About child's activities	94	28
Growth promotion, food supplies	159	48
Growth promotion	35	11
Regarding child's disabilities	20	6
About food supplies	22	7
Management of diarrhoea	-	-
Total	330	100

Mother received any referral services from AWC	Frequency
Yes	141
No	189
Total	330

Mother received any awareness on services about SN and its importance	Frequency	Percentage (%)
Yes	166	50
No	164	50
Total	330	100

Are you involved in any mother's group or local people group for assistance as helper in cooking of meal?	Frequency	Percentage (%)
Yes	106	32
No	224	68
Total	330	100

To mobilize community's assistance for arranging vegetables, milk etc	Frequency	Percentage (%)
Yes	106	32
No	224	68
Total	330	100

Spread awareness about exclusive breast feeding, complementary feeding and better child care practices	Frequency	Percentage (%)
Yes	198	60
No	132	40
Total	330	100

CONCLUSION

The findings of this study shed light on the modest but noteworthy role of the ICDS programme in curbing underweight prevalence among Indian children. To enhance this positive trajectory, sustained financial investment and a reinforced implementation framework are imperative. Equally crucial is a multisectoral approach that tackles the root causes of undernutrition. It is likely that integrating these components can amplify the efficacy of ICDS in combating childhood underweight.

The main study was done among 330 samples. The findings revealed that out of 330 samples, 25% were normal, 29% were moderately malnourished and 40% were mildly malnourished and only 6% were severely malnourished.

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