

STUDY ON NUTRITION IN

ONE GRAMPANCHAYAT OF SEVEN
SOUTHERN DISTRICTS OF ORISSA

A Comprehensive Report

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Executive Director

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1. INTRODUCTION

In the scheme of development planning in India over four decades substantial results have been achieved in terms of aggregate economic growth and qualitative excellence in several technical and creative fields. All the same, there has admittedly been a relative if unintended, neglect of human and social development, as distinct from the evident emphasis on material resources and service infrastructures. True, there have been significant attempts in support of social factors of development like education, nutrition and health, each in its own sphere and respecting the distinction of their disciplinary origins and departmental jurisdiction. Not surprisingly the essential link between the cluster of socio cultural factors from one hand and economic base to sustain on the other has remained weak. This situation has had a somewhat disabling effect particularly on the half of the populations in or near conditions of poverty. While seeking to understand the interplay of variable factors that help or hinder the human potential, the focus of the analysis is turned on the process of development through the sequential stages of child-women-child life cycle. This approach of centering the discussion on the human being comments itself on balance, despite two sets of deterrents. First the enormous differentials in the human conditions across the states and within each of them in terms of gender, social groups, economic class and urban impact and second the disparate sources of relevant information. While considering the factors of disparity and of development influences the life cycle, it would be logical to begin with life before birth, from conception. Through the formative stages of life and its development it is necessary to see the child with the mother. But what the mother is to the child is determined by her situations of life and status in the society as person and as a woman. These in turn are molded by the conditions of her own childhood and upbringing in her adolescent period. The passage from childhood to womanhood is admittedly difficult for large segment of female population despite the general trend of hopeful change in socio-economic indicators. The girl (adolescent stage) is a person in her own right, but in most places, and in several layers of society her duties are defined but her rights are not recognised.

The health disabilities to which a girl, woman or child suffer is therefore a central focus of this study through the picture of lifecycle.

The state of Orissa extends from 17.49 to 22.34 degrees North Latitude and from 81.28 to 87.29 degrees east Longitude in the eastern coast of India. The land area of Orissa is about 4.74% of the total land area of India. Total population of the state is 3.74% of the country. So, it has comparatively low density of population with 203 persons per sq. km. Compared to 273 at national level. Sex ratio of the state is higher than the national level. Flood, drought and cyclone mostly occur in the state and affects agriculture. Although agricultural forms the main stay of the population of Orissa, but there is lack of proper irrigation facilities. Oriya is the main speaking language of the state. Hinduism is prevalent almost in the 95%. Scheduled Caste, they comprise 16.20% of total population and Scheduled Tribe, they comprise 22.21% of total population. Tribal people mostly stay in the hilly underdeveloped areas, commonly constitute tribal belt of Orissa. Literacy status is very poor compared to the national level. For fulfillment of daily requirement, all the members of the family depend on one earning member who is not even competent enough to sustain his family.

There has been tremendous amount of scientific advancement in the field of modern medicine along with ensuring right kind of health system in the world. But in the state till now there is dependency of the people on the traditional systems of medicines due to lack of proper infrastructure for modern system of medicine. The places where there is availability of the facility of modern system of medicine, even the people are not getting right type of treatment in proper time due to negligence of either management or resource. Because of this in the interior place due to inadequate communications, uneven distributions of health care facility. Infant death, maternal death, high-risk pregnancy, Grade III & Grade IV malnutrition, Reproductive Tract Infections, Sexual Tract Infections and communicable diseases are on rise.

OVHA has always tried to put its best effort towards making health a reality for the people of Orissa. Its efforts were always intervened among the community at the grassroots level through its member organisations. Considering the poor quality of health mainly due to problems at mother, child and adolescent level, this study on Nutrition was planned.

2. OBJECTIVES:

- To assess the socio-economic and demographic particulars of the study area.
- To assess the Nutrition status of the population of the study area.
- To devise suitable intervention plans for the study area.

3. METHODOLOGY:

It was decided to conduct the study on Nutrition with active collaboration of seven field NGOs of the said project in their respective operational areas of Nayagarh, Boudh, Kandhamal, Ganjam, Gajapati, Koraput and Rayagada districts of Orissa. They selected one GP in their operational area. The lists of these seven FNGOs are given below.

Sl no	Name of District	Name of FNGO	Name of Block	Name of GP
1	Nayagarh	Dahikhai Jubak Sangha	Ranpur	Patia
2	Boudh	Society for Human Resources and Ecological Development	Kantamal	Khatakhatia
3	Kandhamal	Indian Institute of Youth and Development	Tikabali	Koinkhar
4	Ganjam	Kajol Women Welfare Organisation	Chatrapur	Chikalakhandi
5	Gajapati	Social, Educational and Reconstruction of Village Environment	Kashinagar	Kharada
6	Koraput	South Orissa Voluntary Action	Koraput	Lankaput
7	Rayagada	Universal Service Organisation	Kolnara	Badakhilapadar

OVHA prepared a questionnaire for the study after thorough discussion among the study team members. The contents of the questionnaire were as follows.

- Socio-economic Status
- Demographic status
- Nutrition

The pattern of questionnaire was as follows.

- Quantitative
- Qualitative – Knowledge, Attitude and Practice

One master copy each of the questionnaire and master sheet were circulated among the field NGOs for door to door baseline data collection in their operational areas.

In the operational areas, each of the seven FNGOs selected one Grampanchayat for RCH project operations. Under the guidance of RCH project co-ordinator, staff including 5-7 numbers of community health workers took the responsibility of conducting the data collection activity.

First they moved to their operational area and conducted village level meetings regarding the purpose of the study. Door to door visit with data collection was done systematically with much effort. Few unavoidable problems came while interrogating a female respondent by a male person. Keeping in view the guidelines of OVHA, most of the FNGOs carried forward this study mainly with the help of female workers.

Most of the FNGOs sent the filled in Master sheet to OVHA. Few of them submitted the study report. This report was a comprehensive version of the original baseline survey master sheets and study reports.

4. STUDY AREA:

The total study area taken for this study comprises of seven southern districts of Orissa namely Nayagarh, Boudh, Kandhamal, Ganjam, Gajapati, Koraput and Rayagada. These areas are socio-

economically backward, with hills and forests, deprived of most of the health inputs of state government.

Nutritional Profile:

Malnutrition still continues to be one of the most dominant problems of the state and its manifestations and consequences are diverse and alarming. Protein energy malnutrition (PEM) is an important type of malnutrition. It is responsible for high infant mortality. In addition, PEM in first three years leads to irreversible damage to brain. This prevents a child from achieving full genetic potential and makes him/her prone to repeated infections. The other major factors responsible for malnutrition in children are low birth weight, inadequate nutrition and repeated infections. The level of malnourishment moderate around 25-30% and severe about 5% which is quite high. Of all the segment of population children and women appear to be more at risk. Apart from PEM, Vitamin A deficiency and nutritional anemia are prevalent in very wide sections of population. More than 70% of pregnant women are anemic and suffer from iron and folic acid deficiency. This perhaps in turn leads to low birth weight babies.

5. LIMITATIONS OF THE STUDY

During this survey we have certain limitations, which may have affected the study results. These limitations were as follows.

- As the sample size is small in comparison to the total population of the eight districts, it may have affected the study results.
- All though utmost care has been taken to collect accurate and authentic data, some amount of interviewer bias, respondent bias and memory or recall bias can not be ruled out. This may have affected the study results.
- Analysis reports and recommendations have been given in wide spectrum assuming negligible amount of error while preparing the master sheets and study reports of each GP by FNGOs.

6. Tabulations and Analysis

Table 1: Sex wise Distribution of population.

Sl No	Name of District	Male Population	%	Female Population	%
1	Nayagarh	1690	50.97	1626	49.03
2	Boudh	2053	50.63	2002	49.37
3	Kandhamal	651	50.15	647	49.85
4	Ganjam	2689	51.03	2580	48.97
5	Gajapati	1562	50.08	1557	49.92
6	Koraput	1132	48.21	1216	51.79
7	Rayagada	984	46.33	1140	53.67
	Total	10761	49.98	10768	50.02

The above table reflects sex ratio of the population. It is defined as number of females per 1000 males. If we go through the above table, we can mark that Nayagarh, Boudh, Kandhamal, Ganjam and Gajapati districts presents adverse sex ratio for women. Where as in Koraput and Rayagada districts it is favourable for women. The sex compositions of the populations in the above case might have been affected by the differentials in the mortality conditions of male and female, sex selective migration and sex ratio at birth.

Table 2: Caste wise distribution of population.

Sl No	Name of District	SC	%	ST	%	OC
1	Nayagarh	343	10.34	1336	40.29	1637
2	Boudh	617	15.22	96	2.37	3342
3	Kandhamal	149	11.48	513	39.52	636
4	Ganjam	645	12.24	-	-	4624
5	Gajapati	404	12.95	1445	46.33	1270
6	Koraput	488	20.78	1242	52.90	618
7	Rayagada	133	6.26	1915	90.16	76
	Total	2779	12.91	6547	30.41	12207

The above table shows the People of other casts excluding SC and ST occupy maximum percentage in the community except in Gajapati, Koraput and Rayagada where the ST population accounts for maximum percentage. This higher percentage of other casts in the community in some districts lies in favour of our objective statement. Because as per the vision of RCH activities, any programme done will be executed through community based organisations where this kind of people mainly form the executive body. Our approach in this case will be equivalent to imparting health education from known to unknown in the community. The higher ST percentage in the community in some districts like Gajapati, Koraput and Rayagada reflects homogenous nature of the operational area. This will definitely enhance the level of acceptance of any development work started there.

Table 3: Age wise distribution of population

Sl No	Name of District	0-1 yrs	%	1-5 yrs	%	5-11 yrs	%	11-18 yrs	%	18-35 yrs	%	> 35 y
1	Nayagarh	105	3.17	275	8.29	467	14.08	515	15.53	1117	33.69	837
2	Boudh	102	2.52	514	12.68	442	10.90	543	13.39	1937	47.77	517
3	Kandhamal	37	2.85	112	8.63	174	13.41	239	18.41	345	26.58	391
4	Ganjam	128	2.43	516	9.79	748	14.20	841	15.96	1649	31.30	1387
5	Gajapati	57	1.83	281	9.01	475	15.23	411	13.18	854	27.38	1041
6	Koraput	101	4.30	284	12.10	222	9.45	243	10.35	1035	44.08	463
7	Rayagada	89	4.19	168	7.91	524	24.67	280	13.18	810	38.14	253
	Total	619	2.88	2150	9.99	3052	14.18	3072	14.27	7747	35.98	4889

The above table implies that the percentage of population below 18 years on an average in the seven districts is 41.32. This figure is purely in accordance with the demographic figure of under developed country. Out of this the percentage of population occupying in the age group of 11-18 years is around 14.27. This means that current percent of population entering into reproductive age group is quite high. This relates to high growth rate in the operational areas.

Table 4: Distribution of population according to marital status

Sl No	Name of District	Married	%	Unmarried	%	Separated	%	Others (Widow/ Widower)	%
1	Nayagarh	1538	46.38	1758	53.02	-	-	20	0.61
2	Boudh	2070	51.05	1914	47.20	17	0.42	54	1.33
3	Kandhamal	592	45.61	658	50.69	9	0.69	39	2.99
4	Ganjam	2572	48.81	2624	49.80	20	0.38	53	0.97
5	Gajapati	1550	49.70	1471	47.16	25	0.80	73	2.32
6	Koraput	1170	49.83	1106	47.10	22	0.94	50	2.05
7	Rayagada	1052	49.53	1051	49.48	-	-	21	0.98
	Total	10544	48.98	10582	49.15	93	0.43	310	1.25

From the above table it is evident that there is not much difference in the percentages of married population in each of seven districts. The unmarried population also includes the population below the age of 18 years. This explains the high percentage of unmarried population (49.15%). The unmarried population above the age of 18 years will be much lower than this figure.

Table 5: Distribution of population according to Literacy:

Sl No	Name of District	Illiterate	%	Literate	%
1	Nayagarh	1288	46.33	1492	53.67
2	Boudh	1354	41.13	1938	58.87
3	Kandhamal	446	40.88	645	59.12
4	Ganjam	1614	36.88	2762	63.12
5	Gajapati	1589	60.58	1034	39.42
6	Koraput	1492	78.98	397	21.02
7	Rayagada	1424	84.66	258	15.34

Total	9207	51.92	8526	48.08
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It can be easily ascertained from the above table that the illiterate percentage in the area is high (51.92%). Among the districts the illiterate percentage is very high at Rayagada (84.66%) and Koraput (78.98%) and Gajapati (60.58%). The literacy is calculated among the population above the age of seven. Earlier the population from 0-7 years is taken as illiterates, but w.e.f 1991 census they are not taken into account while calculating the literacy percentage. Literacy percentage is highest in Ganjam (63.12%). It can be said that the literacy rate of the interior districts is low compared to that of other districts. As per 1991 census a person can read, write and understand any language is considered to be literate. It is clear from the table that apparent literacy status of Gajapati, Koraput and Rayagada are good.

Table 6: Distribution of population according to educational status:

Sl No	Name of District	NFE	%	M.E.	%	H. S. E.	%	>H. S. E.
1	Nayagarh	993	66.56	234	15.68	189	12.67	76
2	Boudh	616	31.78	843	43.50	319	16.46	160
3	Kandhamal	202	31.32	328	50.85	106	16.43	9
4	Ganjam	371	13.43	1514	54.82	591	21.40	286
5	Gajapati	383	37.04	406	39.27	145	14.02	100
6	Koraput	-	-	396	99.75	-	-	1
7	Rayagada	102	39.53	150	58.14	6	2.33	-
	Total	2667	31.28	3871	45.40	1356	15.91	632

The table further indicates that on average seven districts, the percentage of literate population is up to ME standard. The percentage of population above HSC on average is around 7.41% and rest is NFE learners, which around 31.28%. The lack of higher qualifications may be due to inadequate Government institutions, less option for Government and non-Government job, poor economical status and may be due to inhibition to migrate to urban

areas. The NFE learners strength in the community explain that there is growing interest for education both adult and children.

Table 7: Distribution of households according to profession:

Sl No	Name of District	Agriculture	%	Rural work	%	Service	%	Others
1	Nayagarh	448	55.24	263	32.43	20	2.47	80
2	Boudh	813	91.04	45	5.04	15	1.68	20
3	Kandhamal	139	52.45	100	37.74	21	7.92	5
4	Ganjam	351	28.06	362	28.93	185	14.79	353
5	Gajapati	225	33.48	362	53.87	43	6.40	42
6	Koraput	456	68.16	194	29.00	11	1.64	8
7	Rayagada	344	67.58	154	30.26	5	0.98	6
	Total	2776	54.75	1480	29.19	300	5.92	514

The above table explains household's dependency on different type of professions for earning hood. As it indicates in the seven districts, the majority households depend on agriculture and no depend on service. Rest population depends mainly on rural works i.e. activities like civil works to the preparation of Bidi, Agarbati at their home. Most of the households depend on other types of profession. Although agriculture is major profession at most of family but their getting two proper square meal a day because next to impossible. It is may be due to lack of their knowledge regarding proper utilisation, land reformation, creation at irrigation system, use of high yielding variety of seeds, involvement of latest technology.

Table 8: Distribution of households according to annual income:

Sl No	Name of District	< Rs. 11,000	%	> Rs. 11,000	%
1	Nayagarh	789	97.29	22	2.71
2	Boudh	878	98.32	15	1.68
3	Kandhamal	245	92.45	20	7.55
4	Ganjam	983	78.58	268	21.42
5	Gajapati	611	90.92	61	9.08
6	Koraput	669	100.00	-	-
7	Rayagada	504	99.02	5	0.98
	Total	4679	92.29	391	7.71

From the above table districts on average 92.29% households have income less than 11 thousand. Household having income less than 11 thousand has been put as landmark for identifying those below poverty line. Those above BPL mostly depend on rural works and service. So this economical constraints is a major drawback for taking any kind of development project in the operational areas.

Table 9: IFA Consumption (last pregnancy)

Sl No	Name of District	Yes	%	No	%
1	Nayagarh	278	36.15	491	63.85
2	Boudh	327	31.59	708	68.41
3	Kandhamal	138	46.62	158	53.38
4	Ganjam	344	26.75	942	73.25
5	Gajapati	251	32.39	524	67.61
6	Koraput	112	19.15	473	80.85
7	Rayagada	132	25.10	394	74.90
	Total	1582	30.01	3690	69.99

This table reflects 30.01% of pregnant lady consumed IFA tablets. As per Government of India norms 100 tablets of IFA should be consumed during pregnancy. In India 50-60% of women belong to

poor socio economic status and are anaemic in the last trimester of pregnancy. This type of anaemia is due to deficiency of iron and folic acid. Anaemia is associated with high incidence of premature birth, post partum hamorage, puerperal sepsis and thromboembolisms.

Table 10: Vitamin A Solution Consumption (last pregnancy)

Sl No	Name of District	Yes	%	No	%
1	Nayagarh	205	26.66	564	73.34
2	Boudh	189	18.26	846	81.74
3	Kandhamal	98	33.11	198	66.89
4	Ganjam	379	29.47	907	70.53
5	Gajapati	251	32.39	524	67.61
6	Koraput	105	17.95	480	82.05
7	Rayagada	182	34.60	344	65.40
	Total	1409	26.73	3863	73.27

As per the above table it is clear that Vitamin A consumption during last pregnancy is low. Vitamin A is given to pregnant lady to prevent night blindness in case of both mother and newly born babies. The deficiency of Vitamin A is usually leads to night blindness, the most common symptom which may latter on leads to cataract. In the vulnerable group like pregnant lady and children up to three years of age to consume additional dark leafy green vegetables along with red and yellow fruits are advised. Supplementary Vitamin A solution is also given in vulnerable groups.

Table 11: Infant Mortality History (Cause)

Sl No	Name of District	Malnutrition	%	LBW	%	Non Immunisation	%	Others
1	Nayagarh	14	16.28	23	26.74	28	32.56	21
2	Boudh	-	-	-	-	-	-	-
3	Kandhamal	-	-	-	-	2	5.00	38
4	Ganjam	15	44.12	-	-	10	29.41	9
5	Gajapati	5	22.73	5	22.73	7	31.82	5
6	Koraput	-	-	-	-	-	-	-
7	Rayagada	1	10.00	3	30.00	5	50.00	1
	Total	35	18.23	31	16.15	52	27.08	74

The above table reflects the cause of infant deaths due to malnutrition is around 18%. Malnutrition not only includes lack of food, but also includes unequal distribution of food, unbalanced food. Due to poor nutrition the development of child is poor and when exposed environment becomes susceptible to infections. This further increases burden over child health and leads to mortality.

Table 12: History of breast feeding (time)

Sl No	Name of District	Just after birth	%	Within 72 hours of birth	%	After 72 hours of birth
1	Nayagarh	50	7.13	546	77.89	105
2	Boudh	-	-	789	79.22	207
3	Kandhamal	87	54.72	26	16.35	46
4	Ganjam	197	16.95	607	52.24	358
5	Gajapati	136	23.05	263	44.58	191
6	Koraput	510	100.00	-	-	-
7	Rayagada	-	-	266	100.00	-
	Total	980	22.35	2497	56.96	907

Breast feeding is important because the child gets cholostrum which is an important element required for development of immunity status of the body. The first breast milk contains maximum amount of colostrum. As per the table around 22% of mother feed breast milk just after birth. As per guidelines it should be as soon as possible within one hour. So level of awareness of mother should be increased to breast-feed their babies immediately after birth.

Table 13: History of exclusive breast feeding (time)

Sl No	Name of District	<= 4 months	%	> 4 months	%
1	Nayagarh	93	13.27	608	86.73
2	Boudh	892	89.56	104	10.44
3	Kandhamal	64	40.25	95	59.75
4	Ganjam	491	42.25	671	57.75
5	Gajapati	151	25.59	439	74.41
6	Koraput	-	-	510	100.00
7	Rayagada	266	100.00	-	-
	Total	1957	44.64	2427	55.36

The above table shows that around 45% of mother feed breast milk exclusively up to four months. But rest more than four months may be up to one year or two years. Usually a mother secretes 500-600 ml of milk that is sufficient for the baby up to four months. But beyond that if the baby completely depend on mother milk then he is deprived of important body forming elements, minerals, as a result of which he suffers from malnutrition infections and poor growth.

Table 14: History of supplementary feeding (time)

Sl No	Name of District	Before 4 months with breast milk	%	Before 4 months without breast milk	%	After 4 months with breast milk	%	After 4 months without breast milk
1	Nayagarh	296	42.23	-	-	194	27.67	211
2	Boudh	-	-	-	-	686	68.88	310
3	Kandhamal	25	15.72	-	-	58	36.48	76
4	Ganjam	242	20.82	300	25.82	322	27.71	298
5	Gajapati	217	36.78	51	8.65	93	15.76	229
6	Koraput	-	-	-	-	510	100.00	-
7	Rayagada	-	-	-	-	266	100.00	-
	Total	780	17.79	351	8.01	2129	48.56	1124

This table reflects before four months 18% of mother give to their baby supplementary food while 49% of mother give their child supplementary food after 4 months. Normally a child should be given supplementary food which of semisolid nature from five months up to 12 months.

Table 15: Breast feeding (taboos)

Sl No	Name of District	Yes	%	No	%
1	Nayagarh	688	98.15	13	1.85
2	Boudh	207	20.78	789	79.22
3	Kandhamal	82	51.57	77	48.43
4	Ganjam	728	62.65	434	32.35
5	Gajapati	343	58.14	247	41.86
6	Koraput	510	100.00	-	-
7	Rayagada	266	100.00	-	-
	Total	2824	64.42	1560	35.58

From the above table it is clear that around 64% mother express some or other kind of taboos related to breast feeding in right time. Most common thing that is practised in rural area is giving sugar solution to the new born baby before starting breast milk.

Table 16: Vitamin A Solution Supplement (last child)

Sl No	Name of District	Yes	%	No	%
1	Nayagarh	292	41.65	409	58.35
2	Boudh	588	59.04	408	40.96
3	Kandhamal	149	93.71	10	6.29
4	Ganjam	623	53.61	539	46.39
5	Gajapati	289	48.98	301	51.02
6	Koraput	68	13.33	442	86.67
7	Rayagada	-	-	266	100.00
	Total	2009	45.83	2375	54.17

Children of the age group 6 months to three years are highly susceptible to vitamin A deficiency. So they are provided with vitamin A supplement every six months as per guidelines. From the above table it is observed that 46% of last children have taken vitamin A regularly.

Table 17: Excess food during pregnancy is harmful

Sl No	Name of District	Yes	%	No	%
1	Nayagarh	544	70.74	225	29.26
2	Boudh	425	41.06	610	58.94
3	Kandhamal	NA	-	NA	-
4	Ganjam	418	32.50	868	67.50
5	Gajapati	233	30.06	542	69.94
6	Koraput	367	62.74	218	37.26
7	Rayagada	391	74.33	135	25.67
	Total	2378	47.79	2598	52.21

Excess amount of food given to pregnant lady causes big baby that complicates delivery. This taboo as per the table was found among 48% of people in the seven districts. Actually food consumption during pregnancy should be increased not only from quantitative point of view but also from qualitative point of view. During pregnancy a lady requires additional three hundred calories extra food.

Table 18: Is cholostrum (first breast milk) is useful?

Sl No	Name of District	Yes	%	No	%
1	Nayagarh	218	28.35	551	71.65
2	Boudh	125	12.08	910	87.92
3	Kandhamal	NA	-	NA	-
4	Ganjam	522	40.59	764	59.41
5	Gajapati	70	9.03	705	90.97
6	Koraput	-	-	585	100.00
7	Rayagada	-	-	526	100.00
	Total	935	18.79	4041	81.21

Cholostrum is thick yellowish material secreted from breast milk for one to two days after delivery. It contains immunoglobulin, protein, etc. that are essential to give body resistance. It specially

protects against RTI. From the table it is clear that about 19% of respondent think that cholostrum is useful.

Table 19: Age of initiating supplementary food

Sl No	Name of District	After 4 months	%	Before 4 months	%
1	Nayagarh	288	40.45	424	59.55
2	Boudh	101	10.07	902	89.93
3	Kandhamal	NA	-	NA	-
4	Ganjam	603	48.39	643	51.61
5	Gajapati	194	30.84	435	69.16
6	Koraput	545	100.00	-	-
7	Rayagada	416	100.00	-	-
	Total	2147	47.18	2404	52.82

In tribal area mother feed her milk to the baby for one to two years even more than that. Some of them practise giving additional food before four months unwards, some give after one year. As per the requirement mother milk is sufficient for a baby upto four months. After that additional semisolid food known as supplementary food like, smashed rice, dal, khichdi, etc. should be given after four months unwards. It is clear form the table that about 47% have idea that supplementary food should be started after four months. About 53% started it before four months.

Table 20: History of Birth Spacing

Sl No	Name of District	0-2 years	%	>=3 years	%	Don't Know
1	Nayagarh	120	15.60	266	34.59	383
2	Boudh	829	80.10	103	9.95	103
3	Kandhamal	NA	-	NA	-	NA
4	Ganjam	501	38.96	244	18.97	541
5	Gajapati	372	48.00	123	15.87	280
6	Koraput	-	-	-	-	585
7	Rayagada	-	-	60	11.41	466
	Total	1822	36.62	796	16.00	2358

In poor Indian families a minimum of three years gap should be between consecutive birth. It is because a mother within this three years will be prepared for next delivery by storage of important elements like iron, calcium, protein etc. In the studied seven districts around 16% of couples have knowledge of three years of birth spacing.

7. SUMMERY OF FINDINGS

In this summary of findings of the study in seven districts of the state, we have tried to give an overview of the situation of mother, child and adolescent with respect to their nutritional status. The analysis builds on variety of contributions on specific subjects and from different geographic areas provided by professionals, institutions and villagers.

Most situational analysis come up against many difficulties, how one can possibly summarise the conditions and context of the lives

of mother, children and adolescent in the operational areas of such size and with wide differences make geographic, social, economic and cultural is a difficult task. Thus whenever we present statistics we have tried to portray the range of diversity taking a holistic view rather than sectoral path to analysis. In order to prepare a subjective yet objective analysis we have chosen a middle path.

The following are the important findings of the study.

- Sex ratio is good.
- Study area is heterogeneous.
- Married and unmarried persons are in equivalent proportions.
- Literacy status of population, especially female literacy status is poor.
- Population is primarily dependent on agriculture for their livelihood.
- 92% of population are below poverty line.
- Rampant ignorance of pregnant lady for regular consumption of important elements like iron, folic acid, vitamin A, extra calorie of food etc. during pregnancy.
- Rampant ignorance of the mother about immediate breast-feeding, supplementary feeding, usefulness of breast feeding, vitamin A supplement to baby etc.
- High birth rate along with poor birth spacing is commonly observed.

8. RECOMMENDATIONS

Based on the above findings the study wishes to recommend the following measures to improve the nutritional status of the population.

The literacy status of the population especially female literacy status needs to be improved. The literacy status can be improved by opening more number of NFE centres for both child and adult learners. Measures to decrease dropout rate needs to be taken.

Since most of the people are below poverty line and dependent on agriculture, so, involvement of latest technology, application of high yielding varieties of seeds, chemicals, pesticides, fertilisers and proper land reformation may increase their socio economic status. This may be a state for increasing their standard of living.

As human life has number of facets, one is related with other through dimensions. Therefore giving importance to any state of life means securing all the affairs of subsequent state of life. During pregnancy the lady should be highly motivated to consume extra calorie of food, iron, folic acid, vitamin A etc. This may be through supplementary elements or consumption of food from which all these requirements can be fulfilled. This measure takes care of health of both pregnant lady as well as the baby to be born.

As the baby takes birth, the mother should start immediate breast feeding, regular weight check up, prevention of diarrhoea, immunisation etc. are few important aspects to be covered to maintain proper nutritional status of the children.

For adolescent that is preparatory phase for family life should be proper family life education through different cultural programmes should be arranged.

All the above steps should be done in proper way with community participation.