REPORT OF BASELINE SURVEY IN DAMOH AND BALAGHAT DISTRICTS OF MADHYA PRADESH

Report

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Grameen Vikas Samiti, Community Development Centre & Vikas Samvad

INDEX

EXECUTIVE SUMMARY

Malnutrition among children is a major problem of not only Madhya Pradesh but all over India. NFHS-III shows that 60% children below the age of 3 years are underweight and 40% are stunted. Survey conducted by NIN shows that the malnutrition in MP is 51.9% of children under 5 years.

To find out the present status of malnutrition in Damoh and Balaghat district a study was conducted as baseline study.

OBJECTIVES

The study was conducted to assess the level and spread of malnutrition, local food consumption and production practices, understand nutrition, and child care practices, local situation of poverty and access to livelihood, status of implementation of the ICDS and other related government programmes and current practices for treatment of common childhood illnesses, malnutrition in the two blocks (one one each in Balaghat and Damoh).

METHODS

For the purpose of study quantitative and qualitative techniques were used. A pre-coded structured questionnaires were used to gather information from households with a child under 3 years of age, Anganwadi Centres (AWCs) and village level information. These schedules were pretested.

Survey covered 363 households with children under three years, 10 villages and 15 Anganwadi Centres.

FINDINGS

Almost 42% of the respondents were *adivasis (Tribal)* while about 8% of the respondents were SCs. About 28% of mothers and 9% of fathers of the children were illiterate. 32% of the mothers were 'housewives'. Another one third each was involved in wage labour or cultivation. About 90% fathers worked as cultivation or wage labour.

Almost 55% of the respondents do not own any agricultural land. 76.8% respondents responded that their land was totally non irrigated while 5.5% had partially irrigated land.

It was found that 91.2% respondents live in kachcha houses. More than half have some livestock. 23.4% of the respondents own a cow; 26.7% own an ox and 15.7% own a hen. 99% of the respondents use wood/cow-dung cake as fuel for cooking. More than half of the households had access to electricity. Hand pump is the most common source of water. Very small percent (8.5%) of the respondents have access to a toilet facility.

Per capita consumption of cereals is 17.4 Kg. a month. In terms of pulses the average per capita consumption among the sample was 1.5 Kg. The per capita oil consumption is 1.1 Kg per month. The consumption of fruits was very low.

More than 90% of the mothers had at least one ante Natal check up during last pregnancy, but about 27% got a check-up three or more times. 82% mothers took some Iron & Folic Acid supplements. Tetanus Toxoid vaccine was given to 98% mothers. Less than one quarter (22.9%) of the deliveries were conducted at home.

Overall, 59.5% of the children in the sample the respondents reported that birth weight had been recorded. 17.6% of the cases reported that the birth weight was less than 2.5 Kg. Another 19.9% of the cases it was reported that the birth weight was 2.5 Kg. and 62.5% children were of more than 2.5 Kg birth weight. Comparatively more boys were found in normal grade. About two third (65.8%) of children had MUAC more than 12.5 MM (green). Only 3.3% children were in red zone of MUAC.

It was found that 81% respondents initiated breastfeeding within one hour of birth. About 90% respondents reported that the babies were given breastmilk as the first feed.

35% of the respondents said that they gave their children water to drink before they completed six months. In relation to continued breastfeeding 72.2% respondents were breastfeeding their children at the time of study. The data shows that 1-1% children in both the blocks initiated complementary feeding before completion of 6 months while majority (76%) had started complementary feeding in between 6 to 9 months. 25% children consumed meals four or five times in a day.

As a general response 76% of respondents told that their child was healthy; about 15% said that the child was weak (*kamzor*) and the remaining 9% said that they cannot say how the child was. 74 (20.4%) respondents told that their child had some health problems during preceding 15 days of the study. Among these 74 respondents, the most common problems mentioned were diarrhoea 23%, fever 55.4%, cough 28.4%, breathlessness 2.7% and malaria 4.1%.

92.9% of children above 1 year of age have been fully immunized.

Every survey village has an Anganwadi Centre (AWC) in it. Most of the respondents said that children are taken to the Anganwadi centre daily or at least once a week (72.8%). 90% of the respondents said that their children were weighed at the AWC at least once in the last three months. 26% respondents were aware of the provision of child's growth chart in AWC.

About 98% respondents responded that either child or the mother or both were receiving SNP from ICDS.

80% AWCs surveyed were found in the centre of village while remaining 20.0% were at border of the village. More than 80% AWCs were in or around a tribal location. Average number of children present in the AWC was 13.

Majority AWWs associated malnutrition with breastfeeding and sufficient food or nutritious food. Fewer talked about the linkages with safe drinking water or illness/infection/health care also.

8 out of 10 villages had an ASHA appointed for the village. More than half of the sampled villages had middle school in them. All of the sampled villages had sub-centre and 1 had PHC. Ration shops were present in 5 out of 10 villages. It was found that 9 out of 10 villages have access to electricity. The mean duration of availability of electricity in a day is 14.4 hours.

The most commonly grown crops in the Rabi season are Wheat and Chana, with these being grown in all the villages. Rice were also produced in 9 villages. Matar and Masoor were also produced in 3 and 5 villages respectively. Soyabean, Kutki and Maize are the main crops grown during the Kharif season. All villages use multiple sources of irrigation – the agriculture in the sampled blocks are predominantly dependent on the monsoon and other natural sources (pond, river).

Main cereals consumed in were maize, rice, wheat, kutki and kodo. Kutki and Kodo were also consumed and produced widely. Jwar and Sawan are also eaten in few villages. With regard to pulses, it was found that *Arhar, Chana, Moong, Masoor and Urad* are consumed in most of the villages. Most commonly produced oilseeds were Mustard, Til and Alsi.

Based on data it was found that people's diets are largely cereal based. While pulses and oil do form a part of their diet, the quantities consumed are not enough to meet nutritional requirements. Nutrient rich foods such as milk, fruits and meat were almost unavailable. Forest products those were easily available in previous times were unavailable to local people and gave rise the burden of nutritional inadequacy. Household food security is one of the important contributing factors to the extent of child malnutrition, especially chronic forms (stunting) seen in the sample children.

INTRODUCTION

Madhya Pradesh is a state with the highest child malnutrition level in India. The results of NFHS-3 show that, among children under age three, 60% are underweight and 40% are stunted. Further, the percent of children underweight actually increased in Madhya Pradesh between NFHS-2 (1998-99) and NFHS-3 (2005-06) from 54% to 60%. Madhya Pradesh is also the only state in India that falls in the "extremely alarming" category of the India State Hunger Index developed by IFPRI. According to the recently conducted Hangama Survey the percent of children under 5 years of age in MP who are severely underweight is 16%; severely stunted is 31%; and severely wasted is 4%. Another survey conducted by NIN recently (2010) shows that the malnutrition rates in MP have improved but still high. According to the NIN survey 51.9% of children under 5 years of age in MP are underweight and 48.9% are stunted. Both these surveys therefore show that the prevalence of moderate and severe malnutrition among young children in MP is still very high.

The last few years have seen heightened focus on malnutrition in Madhya Pradesh by both government and non-government organisations. The media has reported on numerous cases of malnutrition-related deaths, public hearings and commissions of inquiry have been held, public protests have been organised and the government has also tried to make some innovations.

In December 2010 the Government of Madhya Pradesh launched an ambitious project for prevention and management of Malnutrition i.e., "Atal Bal Arogya avm Poshan Mission" (ABM). The formation of this Mission provides an opportunity for significant policy reforms to reduce malnutrition in the State. The Mission has the political backing from the highest levels and also promises to usher in major reforms and invest large sums of money.

It is now well accepted that interventions for addressing malnutrition must primarily focus on children under the age of 2 years, along with pregnant and lactating mothers and adolescent girls. Preventing malnutrition among these target groups can break the inter-generational cycle of malnutrition. Currently, the only programme that is designed to address the nutrition needs of these groups is the Integrated Child Development Services (ICDS) Scheme. ICDS is a centrally sponsored scheme that functions through Anganwadi centres with the objective of providing health, nutrition and preschool education services. Many reviews of ICDS have shown that it has failed in meeting these objectives. A number of reasons including inadequate resources and infrastructure, design failures, lack of community participation, absence of convergence with other departments especially health etc. have been cited for the failure of the ICDS. The ABM aims to resolve many of these issues. However, it is still not clear how the ABM proposes to do this.

In the Districts of Damoh and Balahat it was felt that there is a need to undertake a baseline study for observing present scenario of malnutrition.

OBJECTIVES

One of the objectives of the baseline exercise was to understand the local situation in the two blocks (one one each in Balaghat and Damoh). Therefore the study attempted to get information on the following:

a. Assess the level and spread of malnutrition
b. Assess local food consumption and production practices
c. Understand nutrition, and child care practices
d. Assess the local situation of poverty and access to livelihood
e. Assess the status of implementation of the ICDS and other related government programmes
f. Assess current practices for treatment of common childhood illnesses, malnutrition

Moreover, the study also aimed to understand the local production and consumption patterns so that this information could be used to design menus for supplementary nutrition in the ICDS and possibly any day care centres that might be set up.

METHODS

A mix of quantitative and qualitative techniques was used. A pre-coded structured questionnaire was used for households with a child under 3 years of age, Anganwadi Centres (AWCs) and village level information.

Sample households which had at least one child under three years of age were visited and the mother of the under-three year old child, and in the case of her unavailability any other responsible adult member of the family, was interviewed. In the case of Anganwadi centres, the questionnaire was filled up on the basis of interview with the Anganwadi Worker, observation by the investigator and examination of records. For the village questionnaire, a group interview was held with 4 or 5 informed persons, usually including gram panchayat members, of the village.

For qualitative information Focus Group Discussions and case studies were relied upon. In every village one group discussion was held on issues related to food and nutrition. Further case studies of malnourished children were also collected.

Finalising Tools

Tools were predesigned and used for data collection. All these tools were pretested In a meeting, each questionnaire and tool was discussed in detail and feedback from the field testing was also shared. Based on the comments received the tools were then finalised.

Training of investigators

The training workshops were organized in both of the districts (Balaghat and Damoh) prior the baseline survey studies conducted in order to focus on the orientation of the surveyors, grass-root workers investigators and trainers in order to plan a strategy for carrying it forward for the next 3 months and the activities were designed accordingly. 12 workers in Damoh Training and 8 workers in Balaghat training were present during the different sessions. The training phizog the different spectrums of Malnutrition and affiliated issues and was meant to wrap the diversified aspects of malnutrition and its associated matter.

The program holds experts from to cast the words from their expertise to educate and to explain the dimensions of malnutrition, root causes behind and ICDS services. It also was meant to check the level of malnutrition in the project area. The exercise laid emphasis on understanding the grounds of malnutrition and the extended issues and ways to meet out them. There was a handful discussion on the economic conditions of Baiga community; Gond community and other tribes. Also a thorough discussion held on the different ICDS facilities lagging behind in such zone is more responsible for the prevailing malnutrition. It

was explained to the workers that how lack of proper facilities can elevate and peek the conditions.

AREA PROFILE

All the three districts where the survey was conducted have a high population of STs. In Balaghat too, while the district average of ST population is 22.8%; the percent of tribals in the block Baihar is higher than 50%. *Baiga, Gondi* and *Korku* are the *adivasi* tribes living in these areas.

Tendukheda block of Damoh district is also have 30.5% ST population

Female sex ratio is higher (1025) in Balaghat as compared with Damoh (910). The literacy rate in Damoh is lower than Balaghat.

Damoh has higher percent of children under six in the total population.

Very low percent of the population in both the districts have access to toilets.

Rural	**Balaghat**	**Damoh**
Total Population	14,56,435	1,264,219
% Rural	85.6%	80.18%
Sex Ratio	1025	910
Child Sex Ratio (0-6)	967	935
Child Percentage (0-6)	12.4%	15.18%
Average Literacy	76.8%	69.73%
Male Literacy	86.2%	79.27%
Female Literacy	67.8%	59.22%
% SC population (2001)	7.4%	19.48%
% ST population (2001)	22.8%	12.56%
% Rural	87.1%	80.18%
% population without toilets	88.3%	81.5%
% with drinking water source within premises	17.8%	NA
% getting tap water from treated source	2.3%	72.5%

Source: Census 2011
NA: Not Available

Both the districts have high infant and child mortality rates. The under five mortality rate in Damoh is very high at 117. Female child and infant mortality rates is higher than for male.

HEALTH SURVEY - RURAL	BALAGHAT	DAMOH
CBR	23.8	29.2
IMR	67	80
IMR M	61	72
IMR F	72	89
U5MR	80	117
U5MR M	73	103
U5MR F	87	132
SEX RATIO BIRTH	980	937
SEX RATIO 0-4	987	956
SEX RATIO ALL	1007	913

As seen in this broad overview of the districts where the survey was carried out, the districts are poor with low access to health, water and sanitation facilities. They have a low literacy rates, skewed sex ratios and high child mortality rates. The districts are also predominantly rural and have a high tribal population.

In 2010, National Institute of Nutrition Hyderabad conducted a study in all the districts of Madhya Pradesh according to study 42.9% children in Damoh and 48.1% children in Balaghat are underweight.

SAMPLING

The survey was conducted in two blocks of two districts viz. Baihar of Balaghat and Tendukheda of Damoh. The blocks were chosen purposively. The intervention is planned to be carried out in 5 villages of 5 gram panchayats in each block. The villages covered in Damoh were Bagdari, Beldhana, Dukarsata, Panji, Khamkheda where as Khajra, Khajri,Belgaon, Ramhepur and Lapati in Balaghat

The village questionnaire was filled in every village, thereby covering 11 villages in all. Every Anganwadi in the panchayat was covered in the survey, thereby bringing the sample of Anganwadi centres to 15.

For study, list of children under three years from the Anganwadi survey (not enrolment) was first collected from every Anganwadi centre in the panchayat. Then all the lists from one panchayat were collated and from this list all the children were chosen. The households of these children were then visited. The interview was in relation to the sample child, even if there were other children under three years present in the household. If the survey was not able to reach any household or if the respondent was not available then the next child on the list was visited.

In all, the survey covered 363 households with children under three years.

Table below gives details of the sample.

	Balaghat	**Damoh**	**Total**
No. of blocks	1	1	2
No. of Panchayats	4	4	8
No. of villages	5	5	10
No. of AWCs	9	6	15
No. of households	146	217	363

SOCIO-ECONOMIC INDICATORS OF SAMPLED HOUSEHOLDS

Main findings of the survey are presented in this section. On each issue the results of the household survey are presented and this is complemented with information from the FGDs wherever possible.

BACKGROUND CHARACTERISTICS

For the survey an attempt was made to ensure that the mother of the child was present during the interview. Majority 82.9% respondent are wither mother or father of child.

Caste

Almost 42% of the respondents were *adivasis (Tribal)* while about 8% of the respondents were SCs. None of the respondents belonged to upper castes, while the rest (50%) were OBCs. In Baihar block of Balaghat district high percent (52.1%) of respondents were STs, but in Tendukheda of Damoh about 53% of the respondents were OBCs.

Caste	**Baihar (Balaghat)**	**Tendukheda (Damoh)**	**Total**
Scheduled Caste	1.4%	12.0%	7.7%
Scheduled Tribe	52.1%	35.0%	41.9%
Other Backward Castes	46.6%	53.0%	50.4%
Total	**146**	**217**	**363**

Education and Occupation

About 28% of mothers and 9% of fathers of the children were illiterate. Even amongst those who were literate, most were educated only up to middle school. Less than 10% of the mothers of the children in the sample were educated up to high school or higher levels whereas 30.8% of fathers were educated up to high school or more. Mother's education is an important underlying factor causing child malnutrition.

Education	**Mothers (%)**			**Fathers (%)**		
	Baihar	**Tendukheda**	**Total**	**Baihar**	**Tendukheda**	**Total**
Illiterate	30.8	25.8	27.8	5.5	11.5	9.1
Literate	6.2	10.6	8.8	5.5	11.5	9.1
Up to primary	22.6	24.9	24.0	26.0	21.2	23.1
Middle	25.3	30.4	28.4	30.1	26.3	27.8
High school	13.0	7.8	9.9	27.4	26.3	26.7
Graduate and above	2.1	0.5	1.1	5.5	3.2	4.1
Total	**146**	**217**	**363**	**146**	**217**	**363**

In relation to parents' occupation, about one thirds of the women said that they were 'housewives'. Among those who stated other occupations, most were involved in wage labour or cultivation. Few were engaged in any business or regular employment. Amongst the fathers almost two thirds said they worked as wage labour, about 30% in cultivation. A small percent were in government or other regular jobs.

Occupation	**Mothers (%)**	**Fathers (%)**
Cultivation	30.9%	33.6%
Labour	32.8%	59.2%
Government job	3.6%	0.3%
Private job	0.3%	2.2%
Business	0.3%	2.5%
Artisan	0.6%	0.8%
At Home/Nothing	31.7%	1.4%
Total	**363**	**363**

Land Ownership

Almost 55% of the respondents do not own any agricultural land. There is some variation in the percent of landless across the various blocks. In Tendukheda block majority respondents (77.4%) were landless while in Baihar block the scenario is reversed and 21.2% respondents were landless but in case of size of land majority of respondents in both of the blocks had land in between 2 to 4 Acres. It was seen that even among those who own some land, the amount of land owned is very small in all the blocks. About 95% of the respondents in both the blocks own less than 5 acres of land.

Land	**Baihar**	**Tendukheda**	**Total**
Have land	115 (75.8%)	49 (22.6%)	164 (45.2%)
No Land	31 (21.2%)	168 (77.4%)	199 (54.8%)
Total	**146**	**217**	**363**
People Having land	**Baihar**	**Tendukheda**	**Total**
Upto 1 Acre	31 (27.0%)	12 (24.5%)	43 (26.2%)
2 Acre	42 (36.5%)	12 (24.5%)	54 (32.9%)
3 Acre	23 (20.2%)	16 (32.7%)	39 (23.8%)
4 Acre	8 (7.0%)	4 (8.2%)	12 (7.3%)
5 Acre	6 (5.2%)	3 (6.1%)	9 (5.5%)
More than 5 Acre	5 (4.3%)	2 (4.1%)	7 (4.3%)
Total	**115**	**49**	**164**

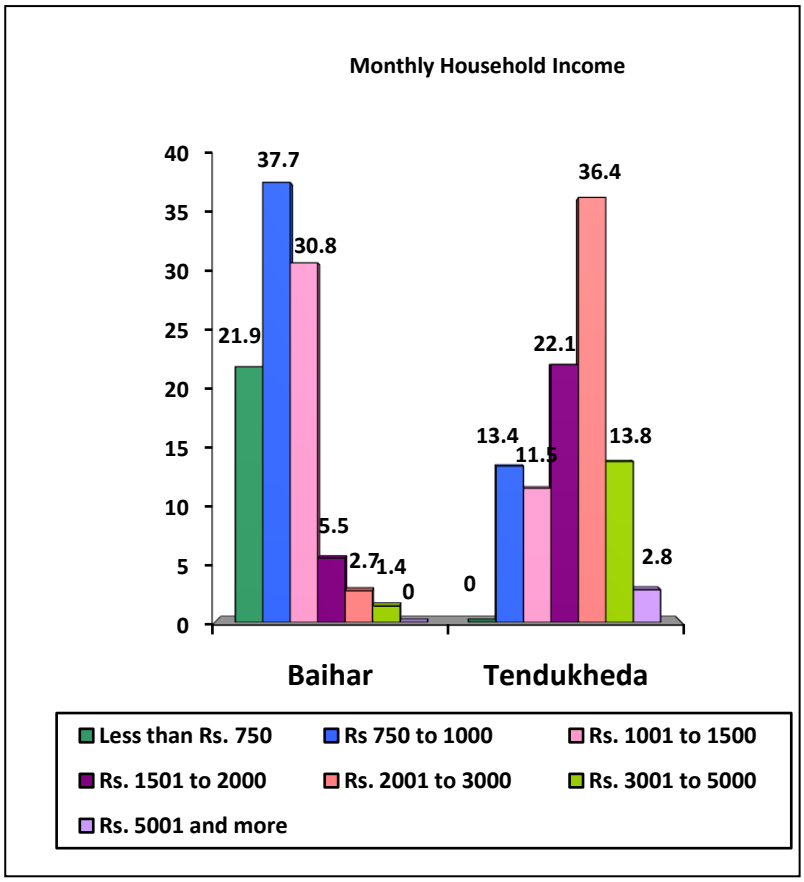
Out of these 164 respondents those were having lands majority 76.8% respondents responded that their land was totally non irrigated while 5.5% had partially irrigated land.

In Tendukheda block majority (51.0%) respondents had irrigated land.

People Having land	Baihar	Tendukheda	Total
Irrigated	4 (3.5%)	25 (51.0%)	29 (17.7%)
Partially irrigated	2 (1.7%)	7 (14.3%)	9 (5.5%)
Not irrigated	109 (94.8%)	17 (34.7%)	126 (76.8%)
Total	**115**	**49**	**164**

Household Income

The respondents were asked to state their average monthly income. It is well known that in a sample where most of the respondents are in the informal sector with unpredictable wages, it is difficult to estimate incomes. Therefore it is common to estimate consumption expenditures as a proxy to income. However, consumption expenditure surveys and long and tedious and not required for the objectives of the present survey. While questions related to land and asset ownership and food consumption were asked to get a general sense of the economic status of the respondents, we also asked them to state their average income. While this might not be accurate, it still gives some indication of the level of income.



In Tendukheda block none of the respondent had income less than Rs. 750 per month whereas in Baihar block about 22% respondent came under this category.

Investigator's Ranking	Freq.	Percent
Low	187	51.5
Lower middle	135	37.2
Middle	41	11.3
Total	363	100

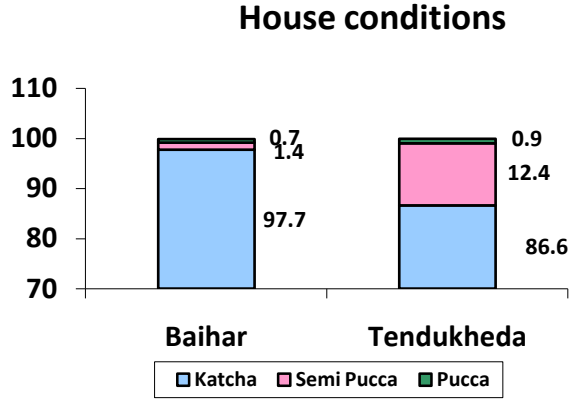
The investigators were also asked to rank the households that they visited based on their perception of the economic status of the household. The investigators ranked each household as "low", "Lower-middle", "middle", "middle-high" or "high". Based on the investigators ranking none of the family were in middle high or high group. Most of the households fall in the bottom two categories with more than 50% being in the "low" group and another 37% being in the "lower-middle" group.

Availability of Work

Less than one fourth of the respondents said that such a situation did not usually arise where they need work and are not getting work. 1.7% said that such a situation arose for less than one month in a year. 22.6% of the respondents said that they do not get work for 2 to 3 months in a year and another 46% said that they did not get work for about 3 to 4 months in a year.

Days not had wage	Baihar	Tendukheda	Total
None	10 (6.8%)	69 (31.8%)	79 (21.8%)
Less than 1 month	6 (4.1%)	0 (0%)	6 (1.7%)
1-2 month	41 (28.1%)	0 (0%)	41 (11.3%)
2-3 months	31 (21.2%)	10 (4.6%)	41 (11.3%)
3-4 months	55 (37.7%)	110 (50.7%)	165 (45.5%)
5 or more	3 (2.1%)	28 (12.9%)	31 (8.5%)
Total	**146**	**217**	**363**

Other Socio-Economic Indicators



It is seen that 91.2% respondents live in kachcha houses. Only 0.3% respondents were living in Pucca houses.

More than half (57%) households have some livestock. 23.4% of the respondents own a cow; 26.7% own an ox and 15.7% own a hen.

99% of the respondents use wood/cow-dung cake as fuel for cooking. In Balaghat 1.4% respondents use gas for cooking purposes.

More than half of the households had access to electricity. In Baihar block 76% respondents had access to electricity while in Tendukheda block 61.8% respondents using kerosene for lighting purpose.

Use for lighting	**Baihar**	**Tendukheda**	**Total**
Electricity	111 (76.0%)	82 (37.8%)	193 (53.2%)
Kerosene	34 (23.3%)	134 (61.8%)	168 (46.3%)
Gobar gas	0 (0%)	1 (0.5%)	1 (0.3%)
Solar energy	1 (0.7%)	0 (0%)	1 (0.3%)
Total	**146**	**217**	**363**

Hand pump is the most common source of water in Tendukheda Block where 76% using hand pump for drinking water, 35% and 19% using well and tap respectively. In Baihar block 53.5% of the respondents said that the source of drinking water for them was a tap water.

Source of drinking water	**Baihar**	**Tendukheda**	**Total**
Tap water	78 (53.4%)	9 (4.1%)	87 (24.0%)
Well	46 (31.5%)	37 (17.1%)	83 (22.9%)
Tube well/Hand-pump	22 (15.1%))	165 (76.0%)	187 (51.5%)
Open water	0 (0%)	6 (2.8%)	6 (1.7%)
Total	**146**	**217**	**363**

In 78.2% of the households the respondents said that they did not take any steps to purify the water. 21.2% of the respondents said that they sieve drinking water with a cloth before drinking.

As seen in the Census data for the district, a very small percent of the respondents have access to a toilet facility. Same situation was seen in the study only 8.5% respondents had facility of toilet.

Toilet Availability	**Baihar**	**Tendukheda**	**Total**
Yes	22 (15.1%)	9 (4.1%)	31 (8.5%)
No	124 (84.9%)	208 (95.9%)	332 (91.5%)
Total	**146**	**217**	**363**

HOUSEHOLD FOOD CONSUMPTION

Respondents were asked how much of each of the main food items they consumed in a month. Based on the number of members in the household, the monthly mean per capita consumption has been calculated. Recommended Dietary Allowance (RDA) for different food items is based on the sex, age and work profile of individuals. It is difficult to comment on the adequacy of the diets in relation to RDA because our data is not individual-based. However, some comparisons are made to get an idea of whether the consumption is close to the RDA or not. Further for the major food items, the last column of the table also provides the per capita average consumption as estimated by the NSS from the Consumption Expenditure Survey of 2009-10.

On average it is seen that, the average per capita consumption of cereals is 17.4 Kg. a month. In terms of pulses the average per capita consumption among the sample was 1.5 Kg. The per capita oil consumption is 1.1 Kg per month. The consumption of fruits is very low, on an average less than 200 Gm a month. Consumption of drumsticks was also very low but still 0.5 Kg per month was consumed per family.

Food Item	**Baihar**	**Tendukheda**	**Total**	**MP Rural (NSS)**
Cereals (Kg)	11.7	20.2	17.4	11.3
Pulses (Kg)	2.4	1.1	1.5	0.71
Oil (Ltr)	1.7	0.9	1.1	0.59
Sugar (Kg)	1.9	1.2	1.4	0.7
Egg (No.)	14.2	1.2	5.4	0.67
Meat (Kg)	0.8	0.1	0.3	0.06
Fish (Kg)	1.0	0.3	0.5	0.09
Leafy vegetables (Kg)	3.9	0.9	1.9	0.43
Groundnut (Kg)	0.02	0.01	0.01	0.05
Vegetables (Kg)	2.8	4.0	3.6	
Mango (Kg)	0.7	0.5	0.6	
Fruit (Kg)	0.2	0.2	0.2	
Tea (Kg)	0.2	0.1	0.1	
Jaggery (Kg)	0.6	0.4	0.5	

The consumption of foods such as eggs, fish and meat is also very low and does not really contribute to the nutrition of members of the sample households.

Almost all the families in both the blocks are consuming meals thrice a day and it was also confirmed by the groups during FGD.

MATERNAL HEALTH

At least three ante natal check-ups are recommended during pregnancy. Amongst the sample respondents, more than 90% of the mothers had at least one ante Natal check up during last pregnancy, but about 27% got a check-up three or more times. In terms of ANC, Baihar is one of the better than Tendukheda block where about 35% of the women received ANC three or more times. In relation to the other components of ANC it is seen that almost 82% mothers took some Iron & Folic Acid supplements during their pregnancy. Tetanus Toxoid vaccine was given to 98% mothers.

ANC performed	Baihar	Tendukheda	Total
Once	34 (23.3%)	27 (12.4%)	61 (16.8%)
Twice	53 (36.3%)	122 (56.2%)	175 (48.2%)
Thrice	41 (28.1%)	32 (14.7%)	73 (20.1%)
Every month	10 (6.8%)	14 (6.5%)	24 (6.6%)
Others	0 (0%)	2 (0.9%)	2 (0.6%)
Don't know	1 (0.7%)	2 (0.9%)	3 (0.8%)
No ANC	7 (4.8%)	18 (8.3%)	25 (6.9%)
Total	**146**	**217**	**363**

TT and IFA	Baihar	Tendukheda	Total
TT administered	144 (98.6%)	213 (98.2%)	357 (98.3%)
IFA consumed	131 (89.7%)	167 (77.0%)	298 (82.1%)
Total	**146**	**217**	**363**

Place of Delivery

Due to the NRHM and JSY, it was found that less than one quarter (22.9%) of the deliveries were conducted at home. Baihar had 28.1% deliveries in comparison with Tendukheda where 19.4% deliveries were take place at home. During FGD also majority groups affirmed that delivery were conducted at health institutions.

Place of delivery	Baihar	Tendukheda	Total
At home	41 (28.1%)	42 (19.4%)	83 (22.9%)
Sub Health Centre	13 (8.9%)	2 (0.9%)	15 (4.1%)
PHC/CHC	90 (61.6%)	163 (75.1%)	253 (69.7%)
District Hospital	2 (1.4%)	1 (0.5%)	3 (0.8%)
Private hospital	0 (0.0%)	6 (2.8%)	6 (1.7%)
Other	0 (0.0%)	3 (1.4%)	3 (0.8%)
Total	**146**	**217**	**363**

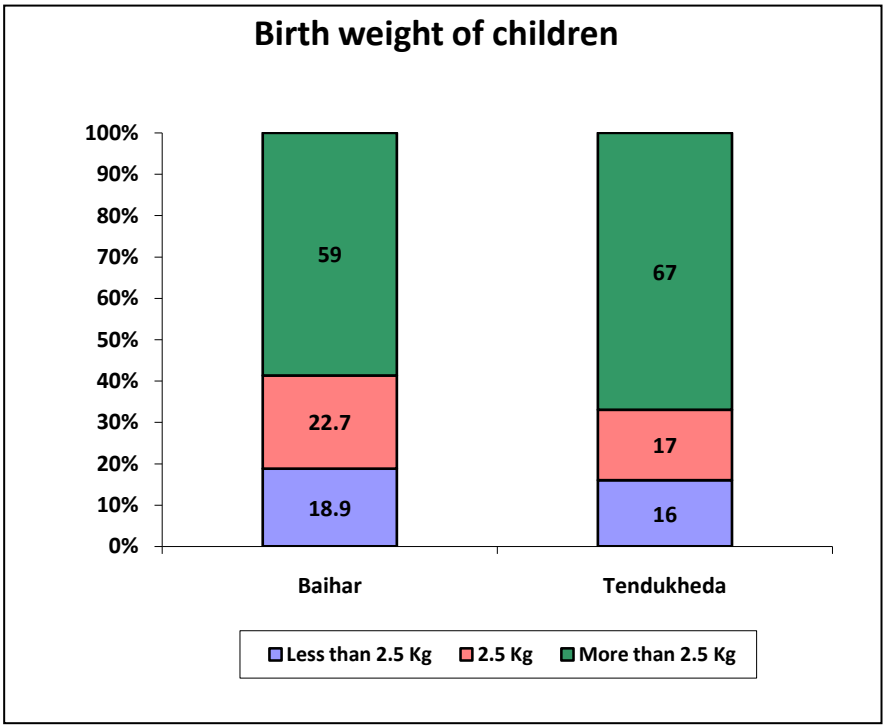
Among those who had institutional deliveries it was seen that most of the women delivered in Government facilities such as the PHC or CHC. A small percent of the deliveries also take place in the sub-centre or district hospitals. Only about 1.7% of the deliveries took place in a private facility.

CHILD ANTHROPOMETRIC INDICATORS

To get an idea of the birth weight of children, respondents were first asked whether the children were weighed after birth. If the child was weighed, within one week after birth, then it was considered. It is seen that a high percent of children in the Baihar block (83.6%) were weighed within first week of birth while in Tendukheda block less than half (43.3%) children were weighed after birth. Overall, 59.5% of the children in the sample the respondents reported that birth weight had been recorded. The birth weight of those children who said that it had been recorded was asked. Where records were available these were also checked. All the respondents were able to recall the birth weight.

Weight recorded at birth	Baihar	Tendukheda	Total
Yes	122 (83.6%)	94 (43.3%)	216 (59.5%)
No	17 (11.6%)	97 (44.7%)	114 (31.4%)
Don't know	7 (4.8%)	26 (12.0%)	33 (9.1%)
Total	**146**	**217**	**363**

The figures given here are based on the reporting of the respondents. It is well known that there is a recall error in reporting of birth weights and therefore one cannot be sure of its accuracy. On the whole in about 17.6% of the cases it was reported that the birth weight was less than 2.5 Kg. Another 19.9% of the cases it was reported that the birth weight was 2.5 Kg. and 62.5% children were of more than 2.5 Kg birth weight.



ANTHROPOMETRY

Heights/lengths and weights of all children was measured. The Salter scale was used for measuring weight. The Mid-Upper Arm Circumference of children was also measured. For height/length a locally made infantometer (with the help of Wooden L, Meter and plane surface) was used. MUAC tapes got from Government of Madhya Pradesh were used. The data on heights and weights were entered in Stata along with data on date of birth, date of interview and sex of the children and the WHO Anthro software was used to calculate the z-scores for weight-for-age; weight-for-height and height-for-weight. Based on these z-scores the prevalence of severe and moderate underweight, stunting and wasting has been estimated using standard WHO definitions.

In both the blocks comparatively more boys were in normal grade. Five children of Tendukheda block were discarded due to non availability of their date of birth. Similarly weight of 6 children of Tendukheda block could not be measured.

In comparison with boys more girls were found Moderate and Severe malnourished.

Weight for age	**Baihar**		**Tendukheda**		**Total**	
	Boys	**Girls**	**Boys**	**Girls**	**Boys**	**Girls**
Normal	48 (77.4%)	55 (65.5%)	74 (69.2%)	50 (50.5%)	122 (72.2%)	105 (57.4%)
Moderate malnourished	10 (16.1%)	22 (26.2%)	26 (24.3%)	31 (31.3%)	36 (21.3%)	53 (29.0%)
Severe malnourished	4 (6.5%)	7 (8.3%)	7 (6.5%)	18 (18.2%)	11 (6.5%)	25 (13.7%)
Total	**62**	**84**	**107**	**99**	**169**	**183**

A very low percentage (3.0%) of children MUAC could not be taken. About two third (65.8%) of children had MUAC more than 12.5 MM (green). Only 3.3% children were in red zone of MUAC.

MUAC	**Baihar**	**Tendukheda**	**Total**
Red	4 (2.7%)	8 (3.7%)	12 (3.3%)
Yellow	41 (28.1%)	60 (27.6%)	101 (27.8%)
Green	94 (64.4%)	145 (66.8%)	239 (65.8)
Not measured	9 (4.8%)	4 (1.8%)	11 (3.0%)
Total	**146**	**217**	**363**

CHILD FEEDING

Immediate causes of child malnutrition are related to appropriate child feeding practices and illness among children. The recommended breastfeeding practices include early initiation (starting breastfeeding within one hour of birth), exclusive breastfeeding (for six months) and continued breastfeeding (up to two years).

Timing of Initiation of Breastfeeding	**Baihar**	**Tendukheda**	**Total**
Within 1 hour	135 (92.5%)	159 (73.3%)	294 (81.0%)
Within 2 hour	1 (0.7%)	18 (8.3%)	19 (5.2%)
2 to 24 hour	0 (0.0%)	19 (8.8%)	19 (5.2%)
Next day	5 (3.4%)	3 (1.4%)	8 (2.2%)
Third day	2 (1.4%)	12 (5.5%)	14 (3.9%)
More than 3 days	3 (2.1%)	6 (2.8%)	9 (2.5%)
Total	**146**	**217**	**363**

According to finding of the survey, it was found that 81% respondents initiated breastfeeding within one hour of birth. The early initiation practice is higher in Baihar.

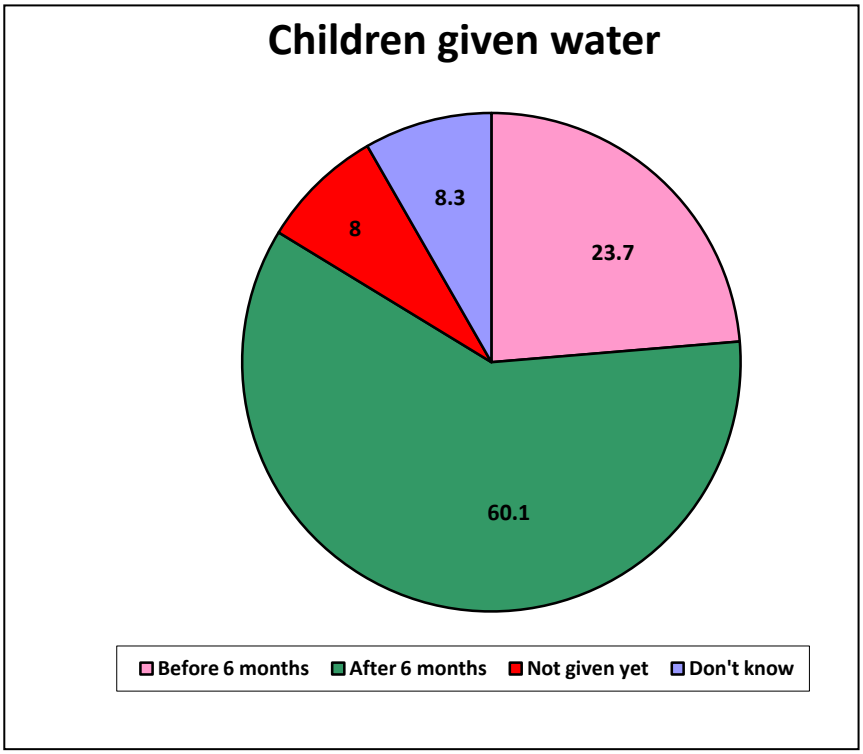
With regard to pre-lacteals, about 90% respondents reported that the babies were given breastmilk as the first feed. About 10% reported that they had given other milk firstly and breastmilk after it. 1% respondents reported that had given some sort of traditional item like jaggery or honey to baby.

Clutched in Orthodox Roots !

Ananya a one year old, on other hand belongs to a family from Dukarsata of District damoh of 8 members including parents and her five sisters dealing poorly for their day to day foods and earnings. She even can't claims to have good health when their parents have to focus on other five girls too. She is also the fine victim of superstitious belief system. Looking back to her birth record, where she was born at CHC but was deprived of her mother's first milk the colustrum because of some evil traditions being practiced in her home, has actually shaken her foundation in her fresh start only. The family has their lame reasons for not providing her with colustrum. To them it is saturated with impurities and needs to be discarded and so done by them. The condition worsens with the increase in demands of other members of family.

First feed to baby	Baihar	Tendukheda	Total
Breastmilk	120 (82.2%)	59 (27.2%)	179 (49.3%)
Colostrum	19 (13.0%)	121 (55.8%)	140 (38.6%)
Other milk	6 (4.1%)	28 (12.9%)	34 (9.4%)
Other traditional	1 (0.7%)	2 (0.9%)	3 (0.9%)
Don't know	0 (0.0%)	7 (3.2%)	7 (1.9%)
Total	**146**	**217**	**363**

The WHO recommends exclusive breastfeeding up to the age of 6 months and continued breastfeeding for two years or beyond. Exclusive breastfeeding means that the child is not given anything else, including water for the first six months of life. In line with other large scale surveys, it was found that while the practice of breastfeeding is quite widespread; the same is not true with exclusive breastfeeding. Since it is difficult to ask about exclusive breastfeeding, the respondents were asked the age at which the child was first given water. 35% of the respondents said that they gave their children water to drink before they completed six months. In some places water was given within the first 2-3 months. In all the group discussions as well, there was a general response that water could be given to children from 2 to 3 months onwards, sometimes even earlier.



In relation to continued breastfeeding 72.2% respondents were still breastfeeding. Among those who are still breastfeeding received breastfeed 6 to 7 times previous day of survey.

Mean age of stopping breastfeeding is 18 months in Baihar and 16 months in Tendukheda

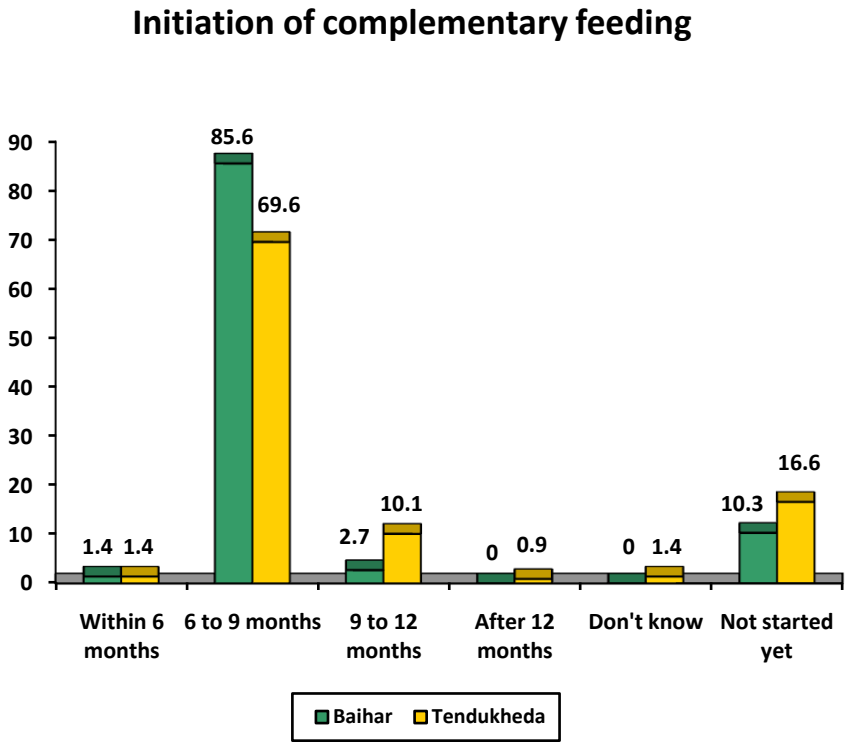
	Baihar	Tendukheda	Total
Still Breastfeeding	120 (82.2%)	142 (65.4%)	262 (72.2%)
No	26 (17.8%)	75 (34.6%)	101 (27.8%)
Total	**146**	**217**	**363**
Mean breastfeeding (less than 2 years)	6	7	7
Total	**84**	**123**	**207**

Colustrum- the nectar !

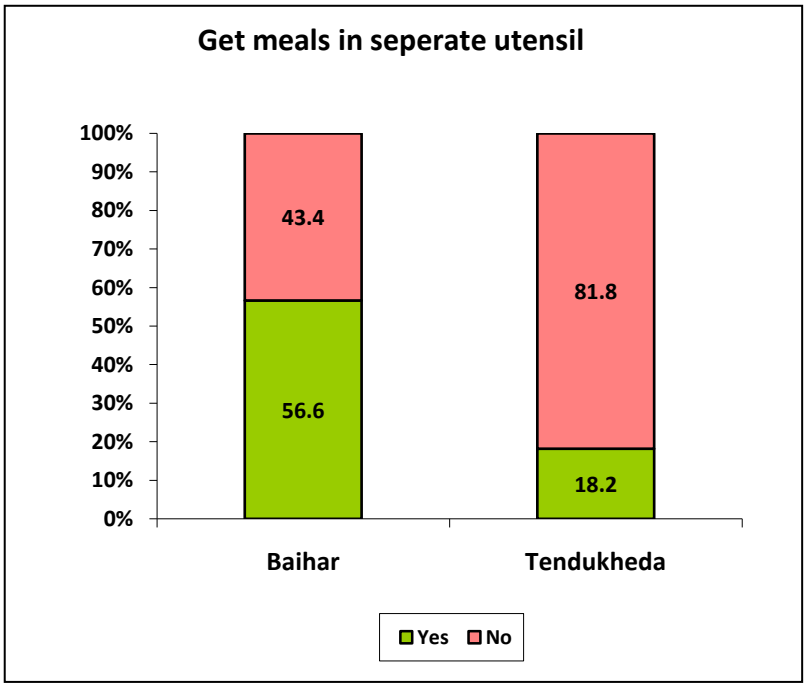
Naman from Panji gram of Damoh a two year old is considered a weak child by its family. The family reports his continuous irritation in his behavior ; his poor responses to food intake and his hypersensitivity in nature.His clinical signs describe him as poorly grown malnourished children. He remains ill on longer notes and had been admitted to Civil hospital Jabalpur, with not much benefits.As per doctors his frquent breakdown is due to his low immunity. Naman's family comparatively is actually a well to do one then what could be the root cause behind his poor immunity when they are rehearsing a fair hygiene schedule? It might be lack of colustrum and mother's milk for petty longer period as revealed from his birth history which is due to some orthodox customs observed by his family where a child is not blessed with mother's milk due to the so called "shor- a mother's delivery period". Despite he had been given the cow's milk

Complementary Feeding

The IYCF guidelines recommend introduction of complementary feeding at completion of 6 months of age. It is further recommended that up to the age of 2 years children are fed 4-5 times a day. Along with this breastfeeding must also be continued. The survey found that 1-1% children in both the blocks initiated complementary feeding before completion of 6 months while majority (76%) had started complementary feeding in between 6 to 9 months. Even during the group discussions it came out that there was no particular age at which complementary feeding was started, it more depended on the child.



To know quantity of food consumed by child it is necessary to give meals in a separate utensil but in Tendukheda majority children (81.8%) does not get meals in separate plate or bowl while in Baihar more than half of the sampled children eats in a separate plate/bowl.

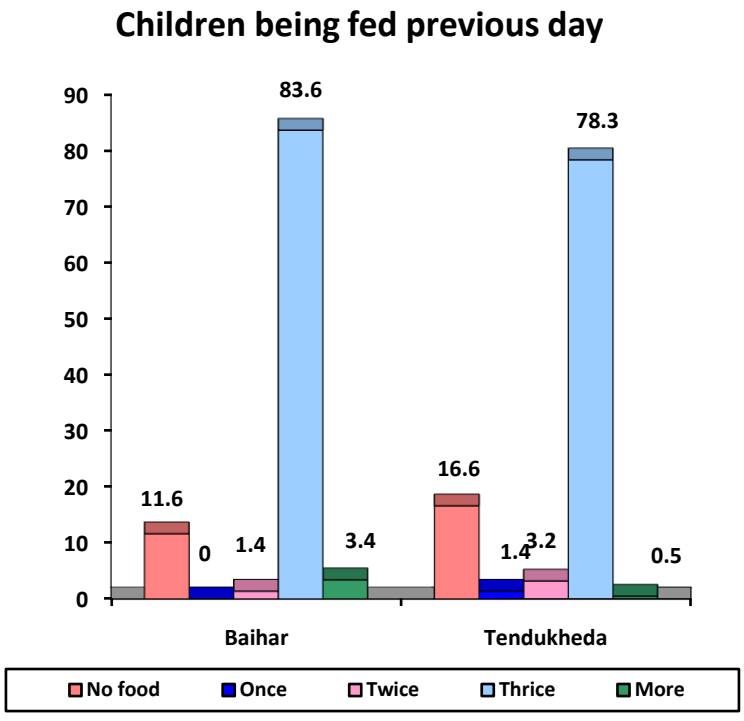


Children, those initiated complementary feeding, it is inquired that whether children were being fed regularly enough. It is recommended that children are fed four to five times a

day; in Baihar block majority respondents (84.9%) reported that children being fed three times a day while in Tendukheda block one third (33.2%) were being fed four times and another 25% three times a day. Less than 10% of the respondents said that they fed their young children 5 or more times a day.

No. of times children being fed	Baihar	Tendukheda	Total
Not once	17 (11.6%)	36 (16.6%)	53 (14.6%)
Once	0 (0.0%)	3 (1.4%)	3 (0.8%)
Twice	2 (1.4%)	9 (4.1%)	11 (3.0%)
Thrice	124 (84.9%)	54 (24.9%)	178 (49.0%)
Four times	1 (0.7%)	72 (33.2%)	73 (20.1%)
Five times	2 (1.4%)	15 (6.9%)	17 (4.7%)
More than five times	0 (0.0%)	15 (6.9%)	15 (4.1%)
On demand	0 (0.0%)	12 (5.5%)	12 (3.3%)
Not fixed	0 (0.0%)	1 (0.5%)	1 (0.3%)
Total	**146**	**217**	**363**

It was also inquired that what the child ate day before survey and a complete list was prepared. It was found that almost 80% of the children ate 3 meals the previous day. Only in 4.5% of the cases, it is seen that the child ate more than 3 times on the previous day. About 15% ate only twice.

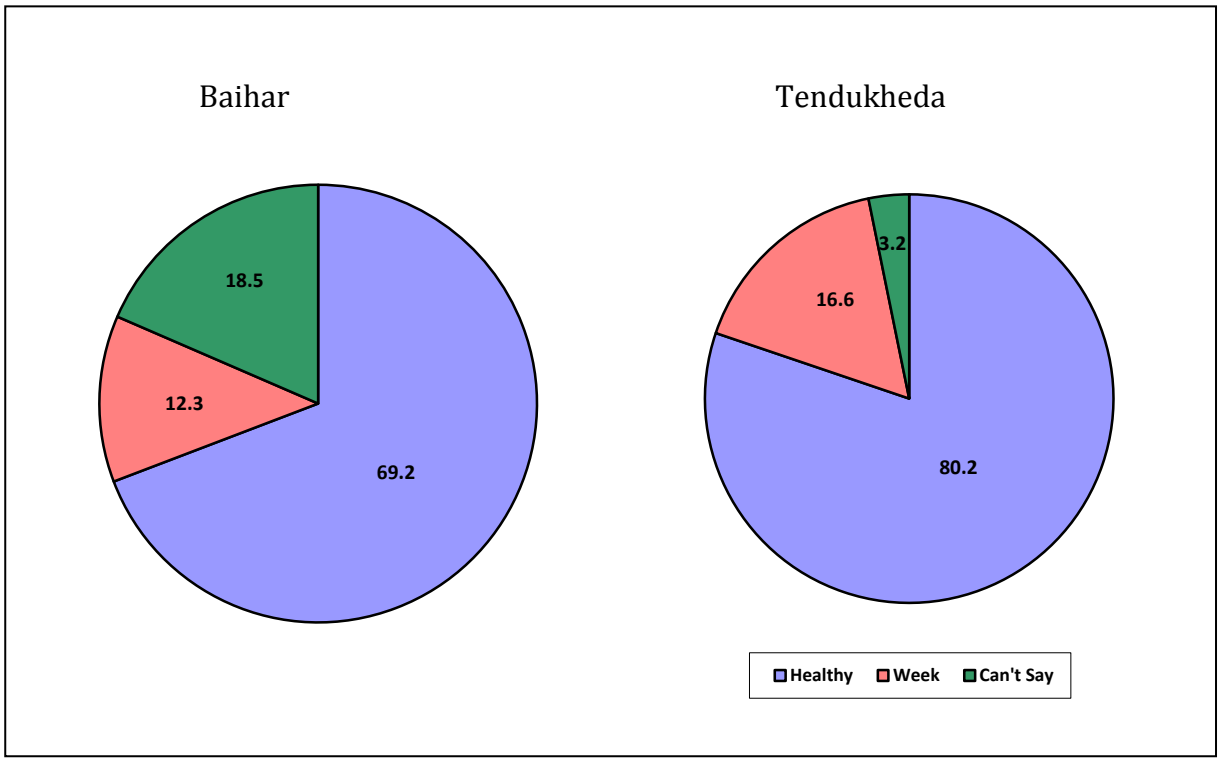


Along with meals almost 72% children were also breastfed. In Tendukheda 12% had some milk on the previous day.

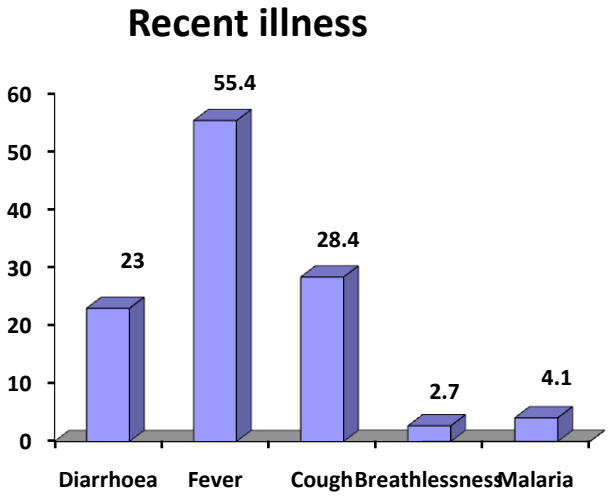
Items that Children Had to Drink	Baihar	Tendukheda	Total
Breastmilk	120 (82.2%)	142 (65.4%)	262 (72.2%)
Cow/Buffalo Milk	0 (0.0%)	26 (12.0%)	26 (7.2%)
Formula/Powdered Milk	0 (0.0%)	1 (0.5%)	1 (0.3%)
Pej	1 (0.0%)	0 (0.0%)	1 (0.3%)
Total	**146**	**217**	**363**

CHILDREN'S ILLNESS AND HEALTH STATUS

In response to a general question on how they would rate the health status of the children, 76% of all the respondents said that the child was healthy; about 15% said that the child was weak (*kamzor*) and the remaining 9% said that they cannot say how the child was.



The respondents were asked whether they felt any problem with the child's health during preceding 15 days. This was a probing question. In response to this question, 74 (20.4%) respondents answered that their child had one or two problems. Among these 74 respondents, the most common problems mentioned were diarrhoea 23%, fever 55.4%, cough 28.4%, breathlessness 2.7% and malaria 4.1%.



Out of 74 cases where children were ill in the preceding two weeks, 66 had sought treatment for the child. In almost 73% of the cases where treatment was sought, a private doctor was consulted. In 10.8% of the cases, the family went to a Government doctor.

About 8% of cases Anganwadi Worker and 4% cases ASHA visited home of the ill children.

About 42% of those who sought treatment said that other than the medicine they had received any advice on how to care for the child. Of those who got any advice (N=31); most were given advice related to feeding more liquids (48.4%), giving ORS (12.9%) and/or feeding nutritious food (25.8%). 38.7% were counselled about use of mosquito net. Some were also told about giving the child a bath regularly (16.1%) and ensuring that there was no water stagnation (9.7%).

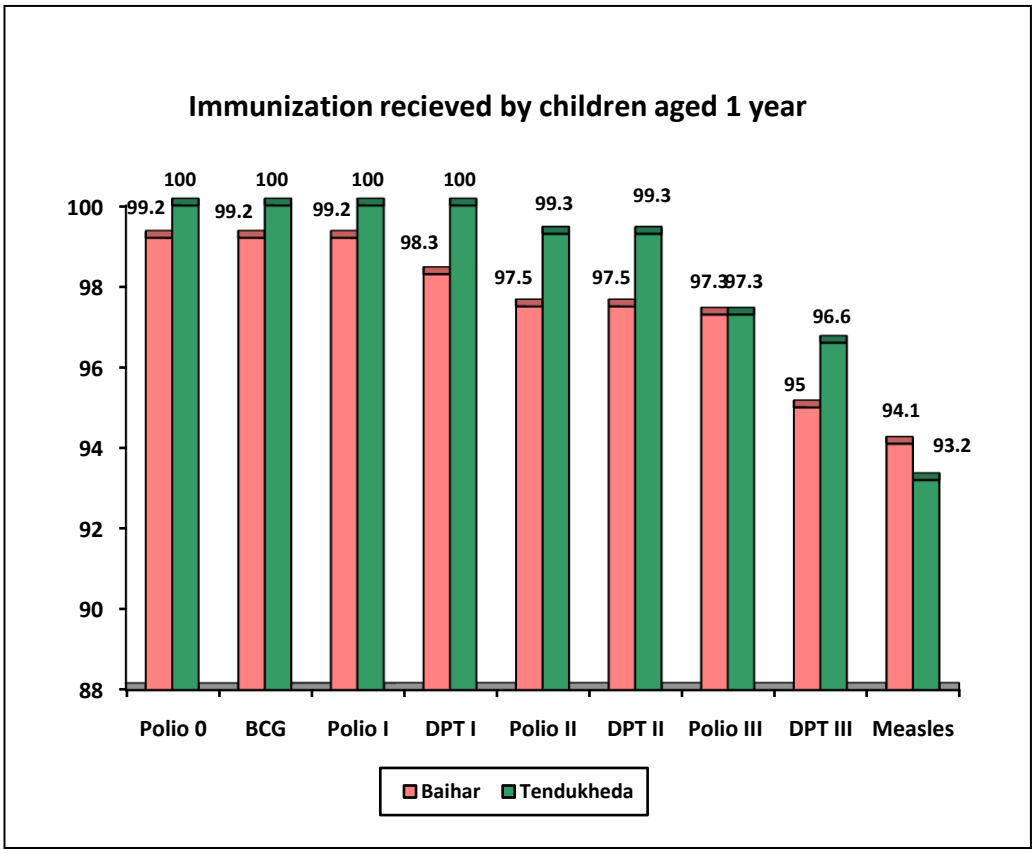
When respondents were asked about any problem that child was facing or they were observing 23.1% responds affirmative. Out of these 84 children about 42% felt that their child was losing weight while 33.3% were facing problem of frequent cough and cold, 21.4% were reported that children were getting tired easily and frequently have fever, 14.3% responded that their children were felt sleepy most of the time.

The investigators were also asked to note if they felt the child had certain visible symptoms of malnutrition such as child having wrinkled skin, being so thin that the ribs could be seen, having dry and thin hair, being lethargic/not responding, being pot bellied and having swollen feet. In few cases, the investigators felt that there was one or more such symptom in the child.

Observing problem with child	**Baihar**	**Tendukheda**	**Total**
Is weak and sleepy all time	9(33.3%)	3 (5.3%)	12 (14.3%)
Gets easily tired	5 (18.5%)	13 (22.8%)	18 (21.4%)
Dry and wrinkled skin	0 (0.0%)	1 (1.8%)	1 (1.2%)
Frequent cough and cold	8 (29.6%)	20 (35.1%)	28 (33.3%)
Frequent fever	9 (33.3%)	9 (15.8%)	18 (21.4%)
Repeated diarrhoea	2 (7.4%)	7 (12.3%)	9 (10.7%)
Losing weight	6 (22.2%)	29 (50.9%)	35 (41.7%)
Cries too much	7 (25.9%)	3 (5.3%)	10 (11.9%)
Irritable	5 (18.5%)	4 (7.0%)	9 (10.7%)
Loss of appetite	8 (29.6%)	3 (5.3%)	11 (13.1%)
Investigators observation			
Slow responses	4 (14.8%)	1 (1.8%)	5 (6.0%)
Ribs	0 (0.0%)	2 (3.5%)	2 (2.4%)
Brown and less hairs	0 (0.0%)	2 (3.5%)	2 (2.4%)
Total	**27**	**57**	**84**

IMMUNISATION

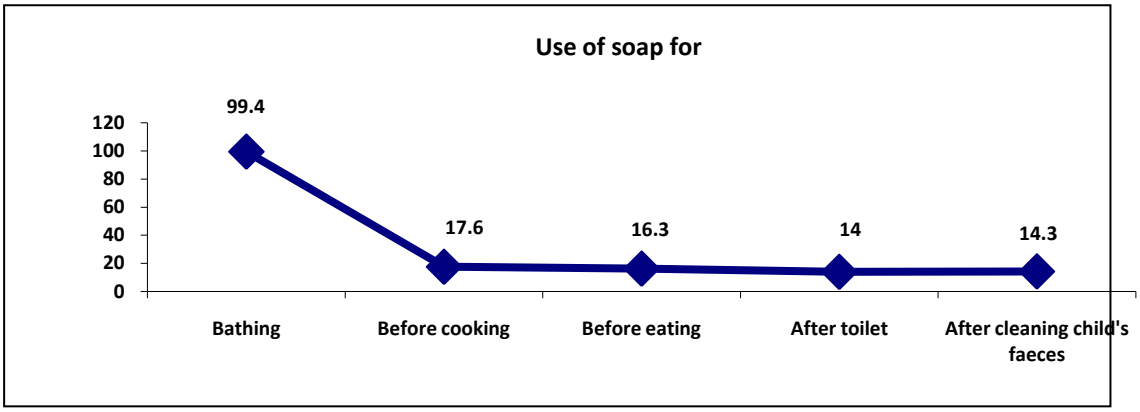
In the group discussions, all groups said that they have faith in immunization and thus children and pregnant women get immunized regularly. Among the sample children who are over one year old, 92.9% of children have been fully immunized. Almost 94% of the children above year of age have been given the measles vaccination. Coverage of other immunization was also very high as about 95% children were found immunized against various diseases.



In Baihar block 93.3% and in Tendukheda 59.5% respondents who had children more than a year old reported that the child had been given Vitamin A drops at least once. But deworming medication was very low in Tendukheda block as only 16.9% reported affirmative while in Baihar proportion of same was 90.8%.

USE OF SOAP

As a specific indicator related to hygiene, questions were asked regarding hand washing with soap. It was reported that in Tendukheda all whereas in Baihar 99.3% were using soap. 99.4% were using soap for bathing, the practice of using soap during other times is less prevalent. For instance less than 20% said that they used soap to wash their hands before eating or cooking. Less than 15% said that they used soap after using the toilet and after cleaning a child's faeces.



Cleanliness is next to godliness…

Manish Kewat from Beldhana is a two and a half year old boy child and is found as malnourished in survey been done. He stays with his maternal grandmother. On discussing his conditions in detail with her grandmother her say was, "He eats a lot, but nothings suffice him". this would probably not the reason for him being under weight. The interviewer has to peek into the conditions which threw the light on the hygiene and sanitation conditions of the family. Manish belongings are not sanitized. Neither do they practice hand wash before eating and after defecation nor do they have cleanliness at their place resulting his frequent illness. He remains suffered from frequent fever chills and diarrhea.

ACCESS TO GOVERNMENT SCHEMES

To understand the functioning of the ICDS, respondents were asked some questions on their access to ICDS and also the investigators visited the Anganwadi centre and interviewed the Anganwadi worker.

Every survey village has an Anganwadi Centre (AWC) in it.

Taken child to AWC	**Baihar**	**Tendukheda**	**Total**
Daily	39 (26.7%)	20 (9.2%)	59 (16.3%)
At least once a week	92 (63.0%)	113 (52.1%)	205 (56.5%)
At least once a month	12 (8.2%)	59 (27.2%)	71 (19.6%)
Less Frequently	3 (2.1%)	10 (4.6%)	13 (3.6%)
Never	0 (0.0%)	15 (6.9%)	15 (4.1%)
Total	**146**	**217**	**363**

Most of the respondents said that children are taken to the Anganwadi centre daily or at least once a week (72.8%). Considering that the children under three years of age only go to the AWC to collect the take home rations that are distributed once a week and for growth monitoring, this is quite encouraging. However about 4% of the children still do not access the AWC.

Growth Monitoring

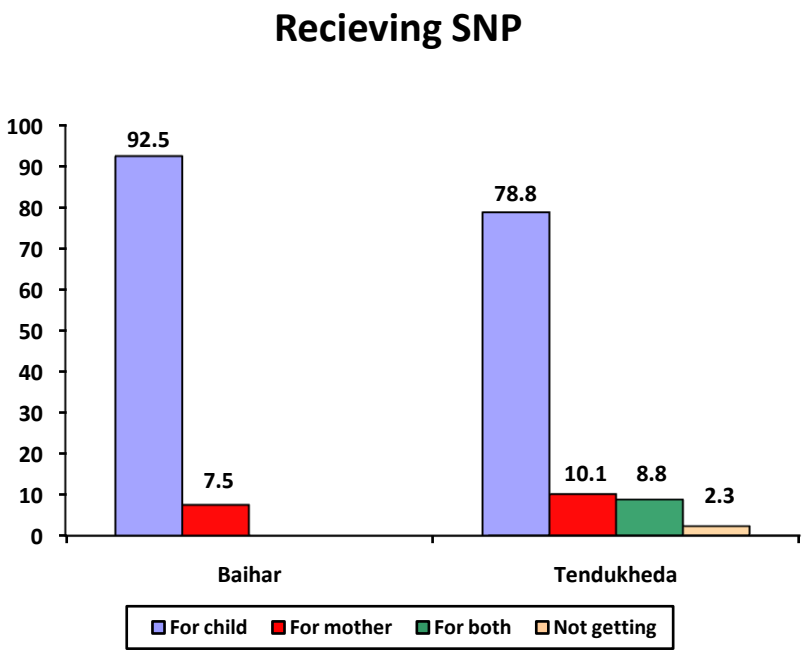
In a positive finding, 90% of the respondents said that their children were weighed at the AWC at least once in the last three months. However, while the practice of growth monitoring seems to be widespread this is not very meaningful because only 26% respondents were aware of the provision of child's growth chart in AWC. In Baihar block 53.4% respondents were aware about growth charts while in Tendukheda only 6.9% knew about it.

25% respondents have attended a meeting in an AWC, but this masks substantial variation of the statistic between the blocks.

	Baihar	**Tendukheda**	**Total**
Home visit by AWW	128 (87.7%)	151 (69.6%)	279 (76.9%)
Attended AWC meeting	79 (54.1%)	12 (5.5%)	91 (25.1%)
Aware of growth chart of child at AWC	78 (53.4%)	15 (6.9%)	93 (25.6%)
Other family members also consume SNP	61 (41.8%)	93 (49.5%)	154 (46.1%)

Supplementary Nutrition Program (SNP)

Based on the reporting by the respondents, in about 98% of cases either the child or mother or both are getting SNP from ICDS. Most received 3 packets during the last month. Therefore this survey shows that there has been a great improvement in the regularity and coverage of SNP with most households reporting that they do receive the take home rations and in the frequency that is mandated by the Government. However there are still issues with the quality of SNP that remain.



Packets of SNP received last month	Baihar	Tendukheda	Total
None	2 (1.4%)	10 (4.7%)	12 (3.4%)
One	1 (0.7%)	24 (11.3%)	25 (7.0%)
Two	1 (0.7%)	11 (5.2%)	12 (3.4%)
Three	142 (97.3%)	141 (66.5%)	283 (79.1%)
Four	0 (0.0%)	24 (11.3%)	24 (6.7%)
Don't remember/ Don't know	0 (0.0%)	2 (1.0%)	2 (0.6%)
Not applicable	0 (0.0%)	5 (2.3%)	5 (1.4%)
Total	**146**	**217**	**363**

It was reported by the respondents that three-fourth of the respondents said that other members of the family also share the SNP. Therefore the take home rations are not actually providing as many calories to the under three child as they are supposed to. On the other hand, given the situation of food insecurity in the area, it can only be expected that the take home rations will be shared amongst other family members.

Anganwadi Centre (AWC)

Total 15 Anganwadi Centres were also sampled and surveyed in this study out of these 9 were from Baihar block and 6 were of Tendukheda. 80% AWCs surveyed were found in the centre of village while remaining 20.0% were at one corner. More than 80% AWCs were in or around a tribal location. Average number of children present in the AWC was 13. Other characteristics that were recorded based on observation by the investigators are presented in the table below.

Observation by Investigators		Observation by Investigators	
AWC open during unannounced visit	93.3%	AWW stays in the same village	86.7%
AWW present	80.0%	AWC accessible to all children	80.0%
Weighing machine available	86.7%	Investigator saw signs of cooking or feeding	80.0%
RTE was available at the centre during visit	73.3%	Supervisor visited in the last month	40.0%
Growth Charts Available	80.0%	Growth charts updated in the last 2 months	60.0%
Weighing machine in working condition	86.7%	AWC building *pakka*	33.3%
Date of birth recorded	100.0%	Working water facility available	26.7%
Hot cooked meals served on day of visit	73.3%	Medicine Kit	66.7%
AWH present	66.7%	Working toilet available	6.7%

While there were many positive findings in relation to the Anganwadi centres such as centres being open, weighing machines being available and hot cooked meals being served at the centre there were also many gaps. For instance, about one third of the Anganwadi centres were not in a pakka building and similarly in same proportion there were no buildings available for AWCs, only one fourth had working water facility available and a very small percentage of the Anganwadi centres had a working toilet facility for them. About 20% of the Anganwadi centres were so located that they are not accessible to all children that they are supposed to cater to. In 40.0% Anganwadi centres the growth registers have not been updated in the last two months. Therefore the survey presents a mixed picture of the Anganwadi centres where compared to earlier studies AWCs exist and seem to be functioning on a regularly basis; but they still have very poor infrastructure and the quality of services need to be greatly improved.

In Tendukheda majority of the groups were aware of Ladli Laxmi Yojana as well as Mangal Diwas celebration at Anganwadi centre. In Baihar no group was aware about celebrating Mangal Diwas.

RESPONSES OF AWW

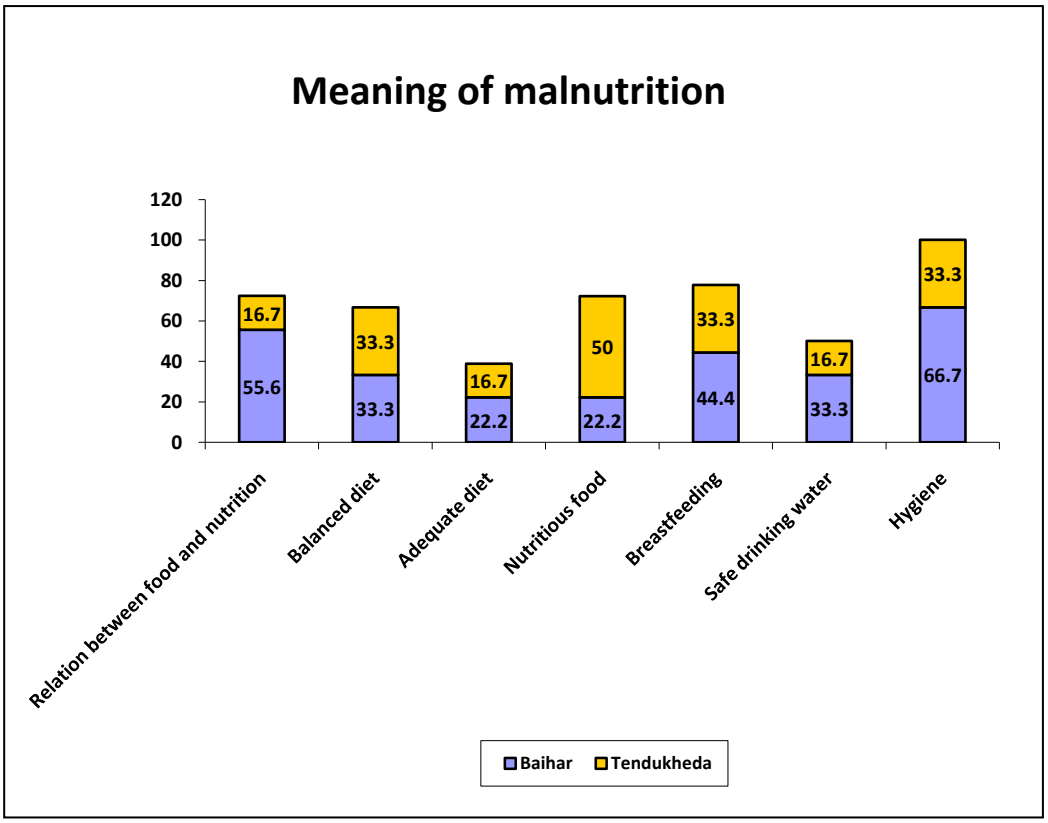
The AWWs were also asked some questions regarding the functioning of the ICDS. Majority AWWs had received their last salary in last month or a month ago. On an average, they had spent 14 years in service. 13.3% AWWs had received no training in the last two years.

Average number of children registered in the 0 to 3 year group was 31 and in the 3 to 6 year group was 27. Majority AWCs fed children of 3-6 years for more than 21 days in the previous month, according to the records of the AWW. Average number of home visits reported in the previous month was 35. Almost 80% received SNP supply either in the survey month or the previous month.

Anganwadi Workers' Understanding of Malnutrition

The Anganwadi workers were asked to say whatever they understood by 'kuposhan'. Most of them associated malnutrition with breastfeeding and sufficient food or nutritious food. Fewer talked about the linkages with safe drinking water or illness/infection/health care.

Instead of labelling malnutrition as '*Kuposhan',* the names that are used by the community was "sukha". In both the blocks almost all the groups were aware of NRCs. They also responded that they took their malnourished children to NRCs and after getting treatment children were healthy.



The Anganwadi workers were then asked to report on what they would do to prevent malnutrition. Early initiation of breastfeeding and full immunization seemed to be the two most prevalent interventions to prevent malnutrition that the AWWs are aware of.

Intervention	Baihar	Tendukheda	Intervention	Baihar	Tendukheda
Early initiation breastfeeding	77.8%	66.7%	Keeping house clean	33.3%	66.7%
Full immunization	55.6%	50.0%	Balanced diet	55.6%	16.7%
Timely complementary feeding	55.6%	66.7%	Clean drinking water	44.4%	0.0%
Exclusive breastfeeding	44.4%	16.7%	Vitamin Supplementation	33.3%	16.7%
Sufficient food	55.6%	33.3%	Hand washing with soap	33.3%	16.7%
Hygienic food	22.2%	0.0%	Spend more on money	33.3%	0.0%
Keep children clean	22.2%	33.3%	Don't know	0.0%	16.7%
Immediate medical attention during illness	0.0%	44.4%			

PDS AND NREGA

A little less than half of the households have a BPL card, in Baihar 76.0% and in Tendukheda 34.6% families had either BPL or AAY card. 41% received ration in the previous month.

63% of the households have an NREGA job card, out of this 9.38% in Baihar and 43.1% in Tendukheda worked under the Act over the last one year.

49% households have an account in bank or post office. A negligible number (less than 5%) of households had health insurance or life insurance.

VILLAGE CHARACTERISTICS

Along with the household survey, some data was also collected at the village level. These data were collected on the basis of interview of a group of key informants in each village. The respondents were usually members of the gram panchayat, Anganwadi Workers, village Secretary, school teachers, MPW, etc. In both the blocks data from sampled 10 villages (5-5in each) were gathered.

Facilities in village

Number of Villages with:	**Baihar**	**Tendukheda**	**Total**
Sample Villages	5	5	10
Anganwadi	5	5	10
Asha	4	4	8
Primary school	4	5	9
Middle school	2	4	6
Sub-centre	5	5	10
PHC	0	1	1
Private doctor	3	0	3
Ojha	2	1	3
Post office	1	0	1
Bank	1	0	1
Ration shop	3	2	5
Kirana shop	1	3	4
Medical shop	2	0	2

All the villages had atleast one Anganwadi centre in the village. 8 out of 10 villages had an ASHA appointed for the village. Except for one village in Baihar, all other sample villages had a primary school. More than half of the sampled villages had middle school in them. All of the sampled villages had sub-centre and 1 had PHC. In Baihar block 3 out of 5 villages have Private doctors available for their health care. Ration shops were present in 5 out of 10 villages.

Physical amenities (number of Villages)	**Baihar**	**Tendukheda**	**Total**
Electricity	5	4	9
Coal Tar approach road	5	3	8
Easily approachable in rain	5	1	6
Public transport: bus	3	2	5

In terms of other amenities, it was observed that 9 out of 10 villages have access to electricity while one village in Tendukheda does not have this facility. The mean duration of availability of electricity in a day is 14.4 hours.

Majority villages were dependent on either public well or public tap for drinking water. According to the observations of the investigators, the most used source of water was in clean surroundings in half the villages (5 out of 10). 6 villages have dump water surrounding to the water source and 5 villages reported that animals were also fulfil their drinking water demand from the same source.

Source of water	**Baihar**	**Tendukheda**	**Total**
Public well	2	2	4
Public tap	3	0	3
Others	0	3	3

Cropping Pattern

The most commonly grown crops in the Rabi season are Wheat and Chana, with these being grown in all the villages. Rice were also produced in 9 villages. Matar and Masoor were also produced in 3 and 5 villages respectively.

Soyabean, Kutki and Maize are the main crops grown during the Kharif season.

All villages use multiple sources of irrigation – the agriculture in the sampled blocks are predominantly dependent on the monsoon and other natural sources (pond, river).

Livestock

Cows and buffaloes were more available in Tendukheda block as compared to Baihar. While oxen, goats and hen were available more in villages of Baihar block.

SHGs

All the sampled village had at least one SHG. In all the villages where there is an SHG, SHGs are involved in supplying MDM to the schools. The other activities that the SHGs are involved in saving.

Migration

All the sampled villages people responded that some people of the village migrate out for work. All the people those were migrated went within the district or state. Majority of them mainly migrated out as unskilled labour in non-farm work. In Baihar block only male members were migrating while in Tendukheda the common practice was that the whole family migrates.

Food Availability and Consumption

The survey also attempted to document all the food items that people consume in the villages and how many of these are also grown in the villages. This was just a preliminary exercise at the village level – quantities and sufficiency were not looked at. What is

presented is only whether the item is consumed and whether this item is bought from the market or own produce or both.

Cereals

Cereals	Consumption	Production	Purchase
Maize	10	10	6
Wheat	10	10	10
Rice	10	10	8
Kutki	6	6	0
Kodo	8	6	2
Jwar	4	2	5
Sawan /Sawariya	1	1	0
Bajra	2	0	2

As can be seen in the table, the main cereals consumed in both the blocks are maize, rice, wheat, kutki and kodo. In all the villages that were surveyed people consumed maize, rice and wheat. These cereals were produced in all the villages in the sample, although the production of these cereals could not fulfil need of the populations thus majority villagers used to purchase it from market as well. Kutki and Kodo were also consumed and produced widely. Jwar and Sawan are also eaten in few villages.

Pulses

Pulses	Consumption	Production	Purchase
Toor/Arhar	10	6	10
Chana	10	9	10
Urad	10	8	10
Moong	10	5	9
Matar	9	5	7
Masoor	10	6	9
Chanwla	4	4	3
Gulabi chana	5	1	3
Tivda	4	4	3
Moth	0	1	1

With regard to pulses, it was found that *Arhar, Chana, Moong, Masoor and Urad* are consumed in most of the villages. While these pulses were also produced in a many villages, in majority villages people also have to depend on the market for consumption as the production is less in comparison with consumption. The other commonly consumed.

Oilseeds

Item	Consumption	Production	Purchase
Til	10	6	10
Groundnut	6	3	4
Mustard	10	8	10
Soyabean	2	1	2
Alsi	8	6	7
Sunflower	2	1	2

The commonly produced oilseeds were Mustard, Til and Alsi. Soyabean was produced only in 1 village.

CONCLUSION

The survey was conducted in two blocks in Balaghat and Damoh districts of Madhya Pradesh. The survey focussed on households with children under three years of age. It was found that the level of malnutrition among children under three years is quite high with 36% of the sample children being underweight based on WHO standards.

The survey areas have a high concentration of tribal population. The sample population largely belonged to vulnerable and deprived communities with poor living standards. Almost 42% of the sample belonged to adivasi community and 50% were from OBC. 28% of mothers and 9% of fathers of the sampled children were illiterate. While 32% of the mothers were engaged in household work, the rest were working outside the home. 33% of the mothers work as wage labour. Almost 55% of the households said they did not own any agricultural land and 90% of the households estimated that monthly household income is less than Rs. 3000 a month. Low levels of income is also reflected in other socio-economic indicators of the household with more than 90% households living in kachcha houses and having no access to sanitation/toilets and clean drinking water.

The poor living conditions of people are also brought out when we look at the food consumption of the household. Based on data on people's reporting on how much of main food items that they consume in a month, it is seen that people's diets are largely cereal based. While pulses and oil do form a part of their diet, the quantities consumed are not enough to meet nutritional requirements. Nutrient rich foods such as milk, fruits and meat are conspicuous by their almost complete absence in people's diets. Forest products those were easily available in previous times were unavailable to local people and gave rise the burden of nutritional inadequacy. Household food security therefore is one of the important contributing factors to the extent of child malnutrition, especially chronic forms (stunting) seen in the sample children.

Along with poverty and household food insecurity, it was found that there were also problems in childcare feeding and care practices that contribute to malnutrition. These problems are associated with lack of health and nutrition services, lack of knowledge on appropriate feeding practices and difficulty in accessing age-appropriate foods (calorie-dense with greater concentration of oil etc.) foods.

Most women accessed ante natal care during pregnancy, however only 27% of the women had at least three checkups. During the discussions in the village it also came out that there were many food restrictions on pregnant and lactating women. Further, women usually ate the same amount during pregnancy as otherwise. Almost 23% of the children under three years in the sample were born at home. Among the institutional deliveries, most were in government facilities.

While early initiation and colostrum feeding were quite prevalent, 24% of the respondents said that the children were given to drink water before they turned six months of age. This indicates that many children are not exclusively breastfed for six months. On the other

hand, there is a delay in starting of complementary feeding in the form of solid/semi-solid foods. 76% of the children begin complementary feeding within 6 to 9 months of age. Further, while it is recommended that young children are fed five times a day 49% of the respondents said that children normally eat three times a day. Moreover on the day preceding the survey 80% children had three meals and another 15% had twice. 56% children were also not given their food in a separate plate/bowl but eat along with adults or other children.

On enquiring about the composition of children's diets it was found that even the food that children ate was largely cereal based. While all the children (among those who had started eating) had some cereal on the day preceding the survey. Almost one fifth of the respondents felt that their child's health was not satisfactory with the child being weak or repeatedly falling ill. 5% and 11% of the sample children had diarrhoea and fever in the last two weeks, respectively. In response to illness most sought care from a private doctor. About 94% of the children above one year of age had received the measles vaccination.

Hygiene and sanitation levels are poor – hand washing with soap is not a prevalent practice, most drinking water sources are not clean, water is not boiled or filtered before drinking. Very few respondents said that used soap at times other than bathing (before eating, after toilet etc).

In terms of access to services, the survey shows that the condition of ICDS has fairly improved when compared to previous surveys of a similar kind. While coverage and regularity seem to have increased, the quality of services is still a big problem. Except one, all the sample villages had an Anganwadi centre. About 73% of the sample respondents said that the child visited the Anganwadi at least once a week. This is a positive development considering that the ICDS has largely failed to reach out to the children under three years of age effectively. However, even though children are now regularly accessing the ICDS, are being weighed regularly and are being given take home rations the survey also provides some clues into why this is not having the desired effect on malnutrition. 90% of the children were weighed but only 26% of the parents were aware of a growth chart or malnutrition status of the child. About 99% of the respondents said that the mother or the child was receiving the SNP from the Anganwadi, however 46% said that the THR was shared by all members of the family.