

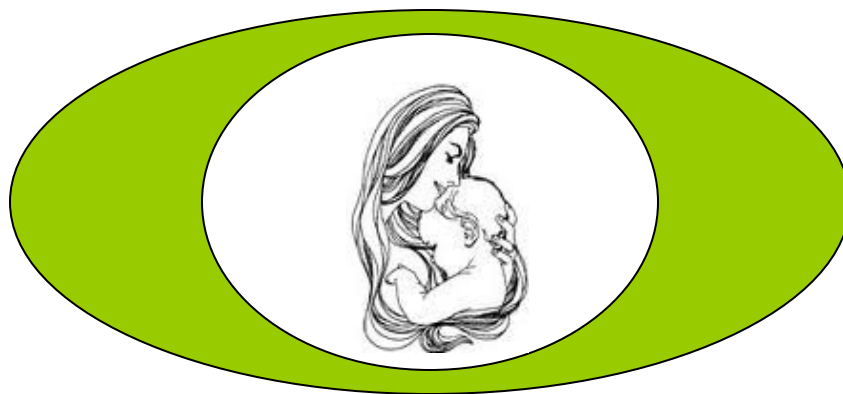


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<b>Comment</b>	

# SEHAT



## **Baseline Assessment For Addressing Malnutrition**

Undertaken by SEHAT Team of CARE India

**(February – May) 2011**



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## **ABREIVIATIONS**

ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi Center
AWW	Anganwadi worker
BCC	Behavior Change Communication
BP	Blood Pressure
BR	Birth Rate
CARI	Central Agricultural Research Institute
CBO	Community Based Organization
CHC	Community Health Centre
CRP	Community Resource Person
DRDA	District Rural Development Agency
GDP	Gross Domestic Product
GP	Gram Panchayat
ICDS	Integrated Child and Development Services
IEC	Information, Education and Communication
IFA	Iron Folic Acid
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
ITDA	Integrated Tribal Development Agency
IYCF	Infant and Young Child Feeding
LHV	Lady Health Visitor
MCH	Maternal and Child Health
MFI	Microfinance Institutions
MIS	Management Information System
MP	Madhya Pradesh
NABARD	National Bank for Agriculture and Rural Development
NBC	Newborn Care
NGO	Non-government Organization
NHD	Nutrition and Health Day
NMR	Neo-natal Mortality Rate
NRHM	National Rural Health Mission
OBC	Other Backward Caste
PHC	Primary Health Centre
PNC	Postnatal Care
PRI	Panchayati Raj Institution
SC	Scheduled Caste
SHG	Self Help Group
SNP	Supplemental Nutrition Program
SSA	Sarva Shiksha Abhiyan
ST	Scheduled Tribe
TBA	Trained Birth Attendants
TT	Tetanus Toxoid
VHND	Village Nutrition and Health Day
WCD	Women and Child Development

## **I. ABSTRACT**

The objective of this study was to formulate appropriate responses by SEHAT Team of CARE India to reduce under weight among children in Tribal Anganwadis of Sidhi & Shahdol districts in Madhya Pradesh. A cross-sectional survey to identify under weight together with a simple wealth-ranking exercise was conducted. Also focus-group discussions were conducted with mothers of children in the age group of 0-6 years, who belonged to the poorest among the tribal, to identify coping mechanisms, finalize technical package and operational plan.

There is statistical correlation between under weight and socioeconomic status. Reported feeding practices were poor, including not initiation of early exclusive breastfeeding, delayed introduction of complimentary feeding, low feeding frequency, and late introduction of supplementary nutritious foods. Healthcare-seeking behavior appeared inadequate and food insecurity was noticed.

## **II. INTRODUCTION**

Adequate nutrition, food supply and access to health service delivery is one of the key areas to achieve health for all. Under nutrition is a main factor impeding human development as poor food intake leads to nutritional deficiencies that adversely affects growth and the immune system of infants and children and is a determinant of poverty.

The current scenario highlights , mostly Anganwadi Workers with limited educational background provide nutrition services in AWCs that have poorest tribal children, poor supply chain of commodities & medicines, and low motivation among service providers. Care seeking at public health facilities (sub centre & PHCs) by poor tribes is sub-optimal and is dependent on RMP services to deal with illnesses. More over vacant supervisor's position in ICDS leads to low / no capacity building initiatives, opportunities for incremental learning, supportive supervision, monitoring, review & follow-up.

The most common response by health managers to under weight are care during pregnancy, newborn care, Infant & young Child feeding (IYCF), supplementary feeding, immunization management, & integrated management of neonatal & childhood illness (IMNCI) interventions, conduct outreach sessions (VHNDs), critical home visits by AWW, ASHA & ANM and incremental training, monitoring & review of AWWs at sector meetings should be rendered timely, regularly, qualitatively to optimize their effectiveness and efficiency through successful implementation of Integrated Child Development Services (ICDS) and National Rural Health Mission (NRHM)

Establishing baseline assessment increases scope for better design & implementation of strategies / activities that will enable program effectiveness. Targeting poorest tribal households for participation in ICDS & NRHM programs and accessing quality services during pregnancy, delivery, neonatal & infancy will enable overcome under weight.

## **III. Executive Summary**

The overall objective of SEHAT Project of CARE is to improve the under weight of the poorest and the most disadvantaged tribal children in 2 north east districts of Madhya Pradesh, through improved service delivery, behavior change & community empowerment. The overall objective is further elaborated in the project that focuses significantly on improving the nutrition & health status and pre-school education. This establishes the scope of work for conducting the present Baseline Survey for assessing the current status against various verifiable indicators in the key result areas as outlined in the project log-frame

SEHAT provided a unique opportunity to evolve multi sector strategies for overcoming under weigh & moving towards child development. A large sample of 9998 households (almost 100% of the households in 114 AWCs) drawn from list of 500 AWCs were chosen to make the survey truly representative. Apart from this, a self

management capacity of SHGs was also assessed through the survey. . The data generated as a result of the survey validates the above stated hypothesis. Data shows that illiteracy is very high in both districts and it is one of the factors that clearly has an impact on knowledge and utilization of nutrition, health, pre-school education & livelihoods services- whether it was knowledge about ANC, early registration, the need for three ANC check ups, the importance of institutional delivery, awareness of health problems during delivery, IYCF, new born care, IMNCl, recording of birth weight, enable child reach developmental milestones – all seem to be impacted by education & household level incomes.

There was enough evidence around to indicate that a vertical program of nutrition & health services delivery only will not have the desired impact on maternal health outcomes as there are a host of other factors will impact maternal & child health, especially for overcoming under weigh. In order to create a stronger evidence base on how integration of nutrition, health & pre-school education leads to better reproductive health outcomes, overcoming under weigh & child development, so as to advocate for critical reforms in current programming of ICDS & NRHM to deliver improved results, SEHAT is being initiated.

The occupational distribution of household and their income points out that agriculture is the primary livelihood source of the tribes of the region. Their fight against poverty will be won or lost in agriculture. This is further compounded by the dwindling of resources from forests evident from the low proportion of workers for whom the collection and sale of non-timber forest produce (NTFP) is the main occupation and the low share of income generated from the occupation.

The dependence on agriculture is heavy but productivity from land is abysmally low. As a result, more than 85 per cent of the tribal households are in poverty. The incomes would have been higher had the rain during last year (2010-11) been a normal one. But normal yields are themselves not capable of making a significant dent in poverty for the reason that a large proportion of them are very poor and are way below the poverty line.

The primary health care services delivery in the area are very poor, particularly with reference to ante and post natal care to pregnant women and new born. Only 20% of pregnant women get the mandatory 3 ANC check-ups and 10% of them consume all 90 + Iron Folic Acid tablets. In addition, 90% of deliveries are conducted at home with the assistance of family members and dais.

The health status of the children, particularly in areas of immunization and under weight is no different from that of pregnant women. 1 BCG, 3 doses each of DPT and OPV and protection against measles are to be given to children before they reach their first birthday. But only 30% per cent of children of 13-23 months of age are completely immunized. Under weight is also very high among children in the age group below < 3 years with only 30 % in the normal category. Of the rest, 40% are in mild, 20% in moderate, 10% in severe category.

Illiteracy is widespread and disturbing. Among pregnant & mothers of 0-6 years, it is 70 per cent are illiterate. Only 47.47 per cent of children in the age group 3-5 years are enrolled/attending Anganwadi centers. The Anganwadi system has the potential to introduce the child to formal schools slowly but surely. It can further help improve the health of he child. But the system does not seem to have made a mark, contrary to the belief.

Of the total children in the age group 3-6, 93 per cent are enrolled, 48.3 per cent are actually attending pre-schools. The status of the female children is worse. The reasons for drop-outs are mainly three -- the poor economic status of the households, the pressing domestic chores of the households, and the apathy of the children towards studies.

SEHAT envisages an important role to be played by the Women SHGs in improving the nutritional status of the tribal children. Whereas the SHGs will act as catalysts in social mobilization towards empowering the tribal women, the CRPs will play the role of facilitators in building the capacity of the SHGs towards accessing various microfinance & livelihood services. In this context, the present capacity of the CRPs to plan and manage their activities assumes importance.

Mothers are expected to play an important role in improving child's nutritive status and cognitive development. But it appears that some of the mothers are seriously constrained to access services as they migrate out along with their children during the day to other villages to earn their wage. Focus group discussions highlight that they are also constrained to participate even in the household decision making process, only few of them have the power to make decisions, that too decisions of trivial nature. When involvement of women in household decision making itself is limited it is unlikely that they will be accepted as leaders in the community. For women to take active part in SHGs they must be inducted into them. As of now, majority of them are not part of SHGs.

Women who had better literacy levels & household income responded better to these indicators. Caste does not seem to be as significant as factor as education & livelihoods. Factors reflecting women's agency such as involvement in decision making at home, role in deciding spend of family earnings, freedom to go out unaccompanied and freedom to spend money of their own-these factors had a direct bearing on the utilization of services by women for themselves & their children. Intra spousal communication emerged as an area of concern as there was very little of it happening and men were being completely isolated when it came to maternal and child health. It also influenced service utilization by women.

#### **IV. Background:**

India's development since Independence has been a curious mix of paradoxes. On the economic front, it has made impressive progress, emerging as the fifth largest economy in the world. In terms of Gross Domestic Product (GDP) growth, it is today second only to China among major economies. However, India ranks a lowly 127th on the Human Development Index, and accounts for one in five child deaths in the world. Only 42% of India's children are fully immunized, 260 million people still live in poverty and more than 210 million are undernourished. Three hundred million citizens above the age of seven are illiterate. In the larger reckoning, there is danger in measuring societal advance merely in terms of economic growth, ignoring those who are outside the pale, and marginalized. One of the most severely affected among marginalized communities is the indigenous people of India, its Scheduled Tribes (STs) – and Scheduled Castes (SCs) which consist of 8% and 16%, respectively, of the total population of the country.

Madhya Pradesh (MP), the second largest state in the country covering an area of 308,000 sq.km, has one of the largest tribal populations in the country (12.23 million people), accounting for approximately 28.40% of the state's total population. Eighteen of the 50 districts (and eighty-nine blocks) in the state are predominantly tribal. The eastern periphery of MP consists of Sidhi & Shahdol districts with blocks that have poorest of the poor tribes. The Scheduled Caste (SC) population of the State is approximately 9.0 million constituting 15.2% of the total population. MP is making efforts to become one of the fastest growing states economies; however this growth has largely bypassed the tribes as evident from the development indicators which are far lower than the general population in the state. Furthermore, the development indicators of tribes in the remote districts of Sidhi and Shahdol have been shown to be lowest among all others.

Despite several constitutional provisions and government programs, STs and SCs have not been able to break out of the vicious cycle of poverty, isolation and exploitation. STs remain the most backward section of society on the three most important development indicators: health, education and income. The status of tribal women is even lower than that of women in the general population and SC women as well as tribal men.

Analyses of the reasons for sub-optimal outcomes from various programs to date have led to continuously evolving approaches to development programming. Recognizing the need for greater targeting, responsiveness, the overarching focus has been on involving citizens as active participants rather than beneficiaries in the development process. In recent times, the move has been towards devolution of power to manage local affairs and decentralization of decision-making; improving transparency, accountability, and sensitivity of institutions and delivery systems; need-based quality service delivery mechanisms; and an enabling policy framework. There is growing consensus that without adequate efforts to empower schedule tribe and scheduled caste communities in

developing transactional capacities, state-wide investments in rural poverty reduction may not translate into tangible and sustainable benefits for the poor.

## V. Methodology for Identifying Marginalized Communities

CARE's objective is identification of the poorest of the poor and enable them overcome poverty. In this respect it was decided to take up communities belonging to the SC, ST in rural areas. In the rural areas the focus would be on selective SC and ST communities. While in general the SC and ST communities are marginalized in comparison to the general population yet theirs is not a homogenous community since they comprise of various sub castes and tribes with varying degrees of marginalization. A few communities are extraordinarily large so that they become the face of the SC/ST community and gain the benefits while others become relegated to the background and are doubly marginalized.

### Identifying SC and ST Communities

Methods to classify households among socioeconomic groups and to identify the poorest & the most marginalized communities among SC and ST it was decided to analyze the socio-economic profile of the communities especially with reference to the literacy rate. A multi staged process was involved in identifying the tSC and ST Communities as part of developing the state program strategy for Madhya Pradesh.

The final list of the most marginalized ST Communities in:

S. No	District	Tribes
1	Sidhi	Khaiwar, Biar, Agariya, Baiga, Kol
2	Shahdol	Agariya, Baiga

The final list of the most marginalized SC Communities in:

S. No	District	Caste
1	Shahdol	Ghasi

## VI. Evaluation Design, Approach and Methodology

SEHAT Baseline Study adopted a comprehensive evaluation design involving robust quantitative and qualitative evaluation research design. This chapter presents an overview of the comprehensive evaluation design and methodology.

### A. Evaluation Design and Construct

The baseline survey was conducted during February to April' 2011, in 114 Anganwadis of 10 Blocks in Sidhi & Shahdol districts of Madhya Pradesh. As part of the quantitative assessment current pregnant women, nursing mothers, mothers of children 0-3 and 3-6 years were interviewed and were also part of FGDs to understand the qualitative aspects.

### B. Target groups

The impact statement of SEHAT focuses on improving nutrition and health status of women and children and enable access to quality education for children from Scheduled Tribe (ST) and Scheduled Caste (SC) communities in 500 villages across Sidhi and Shahdol districts of Madhya Pradesh.

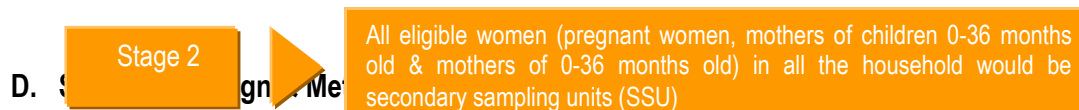
**The objectives of SEHAT are:**



- To strengthen the system that addresses under weight with utmost emergency
- To improve quality in pre school education that increases enrollment and attendance
- To improve access to livelihood options

### C. Research Design

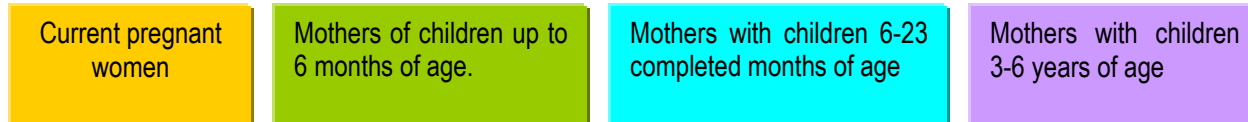
In consonance with the research design envisaged, a stratified two-stage sampling design is been employed. Anganwadi center (AWC) were the first primary sampling unit, current pregnant women and mothers of children aged 0-3 years & 3-6 years (for pre-school education / livelihoods) were the secondary sampling unit.



### D. Study Design

The key objective of the study is to measure and establish baseline for key project indicators i.e. nutrition status. To measure changes, which would occur due to project interventions, sample size should be statistically adequate to identify and measure those changes.

In a bid to establish the baseline on women and children, survey was targeting on three different index groups mentioned below:



### E. Key Information Areas

The key information areas undertaken for quantitative assessment in the baseline:

- Under weight of the children
- care during pregnancy
- new born care
- IYCF
- primary Immunization
- coverage and quality nutrition & health services targeted by ICDS /NRHM
- coverage and quality pre-school education services targeted by ICDS
- coverage and quality microfinance to & livelihood services delivered to pregnant women & mothers of 0-6 years children
- Status of convergent nutrition & health service delivery by AWW & ANM

Estimates for all indicators been generated for the above four universes is from the full project universe comprising 10 program blocks / 500 AWCs in both the districts.

### F. Respondents in Sidhi District of Madhya Pradesh

S.No.	Block	# of Sectors Covered	# of AWC Sample	Respondents Pregnant Women	Respondent Mothers of 0-3 years Chl.	Respondents Mothers of 3-6 years Chl.
1	Kusmi	5	12	69	363	256
2	Majhali	7	12	73	467	438
3	Rampur	6	11	89	513	300
4	Sidhi	9	11	101	553	441
5	Sihawal	6	11	117	618	460
<b>TOTAL</b>		<b>33</b>	<b>57</b>	<b>449</b>	<b>2514</b>	<b>1895</b>

#### Respondents in Shahdol District of Madhya Pradesh

S.No.	Block	# of Sectors Covered	# of AWC Sample	Respondents Pregnant Women	Respondent Mothers of 0-3 years Chl.	Respondents Mothers of 3-6 years Chl.
1	Beohari	6	10	86	629	486
2	Budhaar	7	11	104	454	344
3	Gohpaaru	5	13	109	645	386
4	Jainsingh N	7	10	86	433	360
5	Sohagpur	7	13	110	491	417
<b>TOTAL</b>		<b>32</b>	<b>57</b>	<b>495</b>	<b>2652</b>	<b>1993</b>

#### Total respondents in both Sidhi & Shahdol districts of Madhya Pradesh

S.No.	Block	# of Sectors Covered	# of AWC Sample	Respondents Pregnant Women	Respondents Mothers of 0-3 years Chl.	Respondents Mothers of 3-6 years Chl.
1	Sidhi	33	57	449	2514	1895
2	Shahdol	32	57	495	2652	1993
<b>Total:</b>		<b>65</b>	<b>114</b>	<b>944</b>	<b>5166</b>	<b>3888</b>

### G. QUANTITATIVE EVALUATION ASSESSMENT

In order to assess and quantitatively measure changes in key indicators i.e. change in nutrition status, the study selected a sample size of **944 pregnant women, 5166 mothers of children (0-3 years) and 3888 mothers of 3-6 years** for each age-group. At the level of primary sampling unit, requisite number of AWC need were spread across all the operational blocks in proportion to the number of AWC in the blocks, at an **average of 11 AWC per block**.

### H. Selection of HH (Household) at AWC level

At the village level, the universe is all eligible women consists of all pregnant women, mothers with 0-6 months, 6-3 years and 3-6 year old children in areas covered by Anganwadi centers. House listing exercise provided the details of all mothers with children up to 6 months of age & mothers with children 6-23 completed months of age in each household in the area covered by AWC.

### I. Qualitative assessments comprised of the following:

1. Focus-group discussions with all available ICDS AWWs / Supervisors in the sampled block
2. Focus-group discussions with the current SHG members available in AWC catchments area in all the sampled AWCs

3. Focus-group discussions with the current key PRI members in sampled blocks

#### **J. Management of Data Collection and Analysis**

All assessments in the 10 blocks / 2 districts were conducted by 10 community Resource Persons (CRPs), two district program officers supervised by the Project Coordinator. The household survey teams comprising of CRPs were trained through class-room training and field practice in each district. Growth monitoring processes & use of weighing scales were conducted by CARE team. The 10-odd investigators (CRPs) & Two Program Officers were trained on quantitative survey & qualitative assessments (FGDs) at Shahdol, followed by detailed orientation to the program in the respective districts, as well as field practice.

Elaborate quality control mechanisms were in place, in two tiers: the first by the Program Officers who monitored the quantitative survey undertaken by CRPs and the second by the Program coordinator who she focused on qualitative assessment as well undertaken by Program Officers. A high proportion of questionnaires were verified for key questions by this mechanism. Customized spreadsheets & software was created for data entry of all structured data. The data collected by CRPs was verified by POs, which in turn was cleaned, then analyzed and tables with results were derived.

All qualitative data were recorded using designed & pre-tested tools. Program Officers were provided detailed training in thematic analysis. They then used transcripts for analyzing each FGD and making summary analysis. These were then collated by care team, analyzed by M&E unit and a final report was prepared.

#### **K. Sample Coverage and Completion**

For structured assessments, including household surveys, target completion rates (98% of the households in AWC catchments Area) were achieved or nearly achieved in most cases. Similarly in the case of qualitative assessments was completed in excess of 95% of AWCs in 10 blocks / 2 districts.

#### **L. Approach**

10 trained Community Resource Persons used a piloted pre-coded structured questionnaire sheet. One Anganwadi Worker accompanied them to all the house holds. A map of the village was drawn, and each house was allocated a number. At each selected Anganwadi, every household was approached to identify their eligibility for inclusion (being pregnant women, nursing women or mothers of 06 years children). Consent of eligible household members was asked and, on obtaining their consent, the pregnant women & mother of children 0-6 years were subjected to interview. Children were screened weighed using calibrated Salter Scales.

#### **M. Focus-group discussions**

Following the identification of current SHGs and the mothers who expressed to be part of SHGs, AWWs & PRI members were part of the focus-group discussions, taking into account the nutritional status of their children and their socioeconomic situation. In all 114 focus group discussions were held with mothers classified as very poor (from < poverty line households).

Questions concerned alterations to purchasing ability due to harvest loss, access to paid labour and credit, nutrition and diet, and health behavior and hygiene. Information was also collected on average expenditure per month. The aim was to identify the differences in nutrition-related practices and the presence or absence of coping mechanisms among households with or without wasted children of the poorest socioeconomic stratum.

#### **N. Statistical Analysis**

All data were processed and analyzed using the statistical package Epi-Info. Households were stratified according to presence or not of a malnourished child, residence by administrative district, and socioeconomic status.

#### **O. Challenges of the Study**

While the study has been successfully completed, the field teams faced a lot of problems during the course of field work that reflected in completing the baseline study beyond the envisaged timeline. One major limitation was the unavailability of target respondents during their home visits. This problem was more rampant in interior AWCs and households in hamlets. The target women were leaving as day migrants to other villages & towns to earn their daily wage. This became difficult to define catchment's areas as the same was not defined by AWWs. Field work also remained affected due to festivals (Holi) as these were the days of declared holiday for government officials.

## **P. Preparations for Qualitative Evaluation**

### **i. Finalization of Tools**

Qualitative study tools were prepared in consultation with the CARE team. As this qualitative component of program assessment was appended to quantitative component, the qualitative survey tools were developed in line with the quantitative structured tools. The preparation of tools involved several brainstorming sessions with an objective to make the assessment more relevant and concrete in nature. Besides, research tools were also pre-tested twice though on a limited sample and feedback was included while finalizing the research instrument.

### **Tool Matrix**

	<b>FGD</b>
Pregnant Women	- Structured Interview
Nursing Mothers	- Structured Interview
Mother of child 0-3 Years	- Structured Interview
Mother of child 3-6 years	- Structured Interview

Subsequently as research instrument got finalized, research tools were also translated in Hindi.

In order to have comprehensive understanding two stage training was conducted:

- Centralized at District Level
- And individual practice sessions, handholding / monitoring the CRPs undertake the process at AWC level

### **ii. Centralized Training of Qualitative Survey Teams**

In order to have a comprehensive and common understanding on qualitative study objectives and methodology, a centralized three day workshop was organized in Shahdol with an agenda to orient the research team (including field teams) on SEHAT processes in key strategies and was further followed by briefing of study tools to enable CRPs have understanding on the concepts and research questionnaire. Expected quality comparison mechanism to be adopted at each level was also elucidated very clearly.

### **iii. Practice sessions by Field Teams**

Individual practice sessions, handholding / monitoring the CRPs undertake the process at AWC & Household level orientation programme for field teams was organized at Gohpaaru ICDS block in Shahdol district. Field team members interacted with Anganwadi workers and were made familiar with the tools/diaries of AWWs. This was further followed by mock-up discussions with SHG women regarding microfinance & livelihoods and the tools used, monitoring and planning issues. Later debriefing session was organized to appease the doubts and develop common understanding among the team members.

#### iv. Monitoring and Quality Control Mechanism

All assessments in the two districts were conducted by a set of 5 Community Resource. Elaborate quality comparison mechanisms were in place, in two tiers: the first by the Program Officer and the second by the Program Coordinator. A high proportion of questionnaires were verified for key questions by this mechanism.

#### v. Baseline Results

### Summery Fact Sheet

	SEHAT Base Line Rural
<b>Sample size</b>	
<b>Pregnant Women</b>	944
Nursing Mothers	1059
Children - 0 – 3 years	5166
Children – 3 – 6 years	3888
<b>Population and households profile</b> (Pregnant. Mothers of children age group 0-6 years)	
Population literate age 7+ years (%)	32.4
Mean household size	5.7
<b>Percentage of household that:</b>	
Have electricity	51.1
Have access to toilet facility	3.5
Live in a Kachcha house	94.2
Live in a Pucca house	2.0
Improved source of drinking water <sup>2</sup>	56.1
<b>Indicators based on currently married women (age 15-44) (Pregnant. Mothers of children age group 0-6 years (Characteristics of women)</b>	
Currently married non-literate women (%)	67.7
<b>Antenatal care during third trimester pregnancy</b>	
Mothers who received any antenatal check-up (%)	60.0
Mothers who had antenatal check-up in third trimester (%)	56.4
Mothers who had three or more ANC (%)	15.8
Mothers who had at least one tetanus toxoid injection (%)	74.4
Mothers who consumed 100 IFA Tablets (%) of the mothers who have received 90 + IFA tablets	28
<b>Delivery care (based on women whose last pregnancy outcome was live/still birth during reference period)<sup>3</sup></b>	
Institutional delivery (%) ( Hospital delivery in the age group 0-3 years)	63.1
Delivery at home (%) ( Home delivery in the age group 0-3 years)	36.9
Delivery at home conducted by skilled health personnel (%)	5.0
<b>Child Immunization</b>	
Number of children age 12-23 months	1566
Children 12-23 months fully immunized (%)	34.7
<b>Children 12-23 months not received any vaccination (%)</b>	
Children 12-23 months who have received BCG vaccine (%)	81.4
Children 12-23 months who have received 3 doses of DPT vaccine (%)	56.4
Children 12-23 months who have received 3 doses of polio vaccine (%)	56.4
Children 12-23 months who have received measles vaccine (%)	51.0
Children (age 9 months and above) received two doses of vitamin A supplement (%)	11.4
Children under 3 years breastfed within one hour of birth	68.5

Children age 0-5 months exclusively breastfed	
Children age 6-11 months exclusively breastfed for at least 6 months	36.1
Children age 6-9 months receiving solid/semi-solid food and breast milk	6.8
<b>Nutritional Status</b>	
Normal Grade ( Green)	62.7
Moderately malnourished (Yellow)	24.8
Severely Malnourished (Red)	10.5
<b>Pre-School Education</b>	
Children registered for PSE	93.2
Children go to AWC	49.7
<b>Livelihoods</b>	
% of women (pregnant, nursing & mothers of children U 3) interested in being part of SHGs	51.0
% of women (pregnant, nursing & mothers of children U 3) interested in undertaking live stock related livelihoods	24.0
% of women (pregnant, nursing & mothers of children U 3) interested in	
% of women (pregnant, nursing & mothers of children U 3) whose HH income is < 2500 INR	41
% of women (pregnant, nursing & mothers of children U 3) benefited from NAREGA	16
% of women (pregnant, nursing & mothers of children U 3) holds bank account	10
<b>Access to Public Distribution System (PDS)</b>	
% of women (pregnant, nursing & mothers of children U 3) who are benefiting from PDS	56

## BASELINE RESULTS

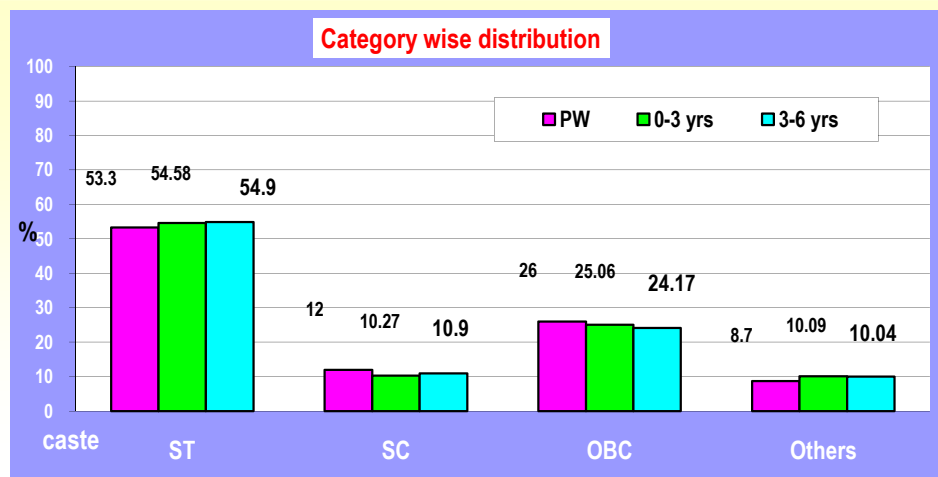
The key objective of SEHAT is to reduce under weight and sustain the result, specifically outcome result at the community level. Present chapter details out the current status of various indicators related to maternal & child health, pre-school education & livelihoods.

Strengthening of maternal health care services to ensure safe motherhood is one of the major components of the National Rural Health Mission (NRHM). The maternal health care services for antenatal care includes at least three antenatal care visits, iron prophylaxis for pregnant and lactating women, at least one dose of tetanus toxoid vaccine, detection and treatment of anemia in mothers, and management and referral of high-risk pregnancies and natal care, that is a encouragement of safe delivery, post-natal care and management of unwanted pregnancies. In rural areas, the government delivers reproductive health and other health services through its network of Sub-Centres, Primary Health Centres (PHCs), and Community Health Centre's (CHCs). In addition, pregnant women and children can get services from private maternity homes, hospitals, private practitioners, and in some cases, non-governmental organizations (NGOs) and trust hospitals. In urban areas, reproductive health services are available mainly through government or municipal hospitals, Urban Health Posts (UHPs), Urban Family Welfare Centres (UFWCs), hospitals and nursing homes operated by NGOs, and private organizations.

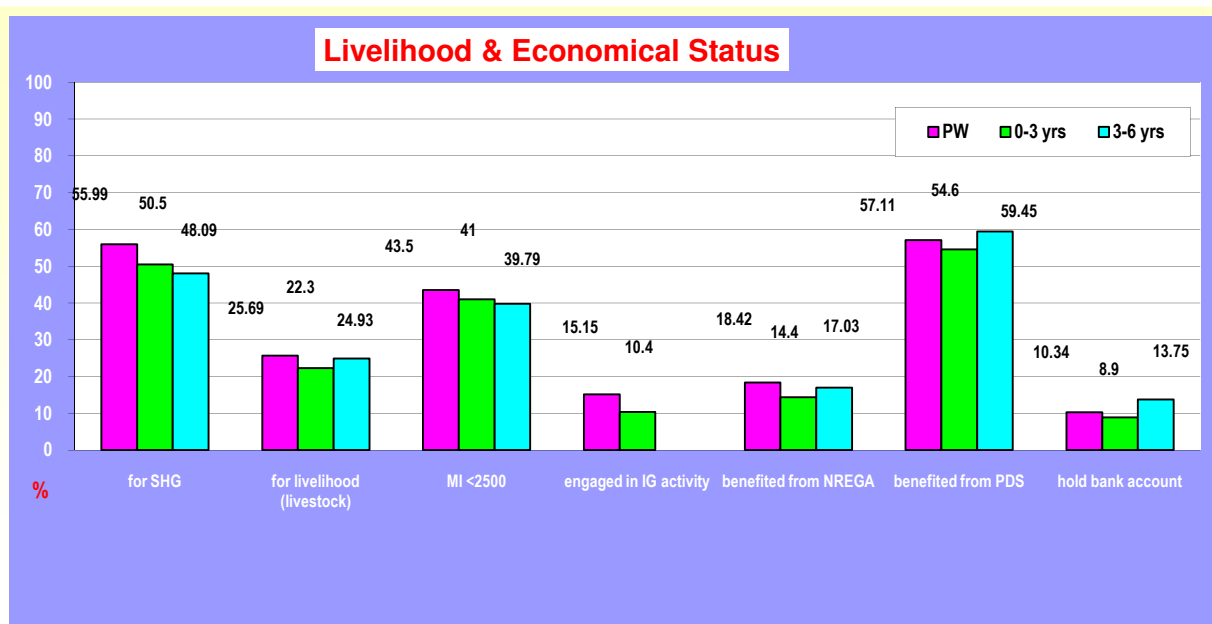
The National Population Policy (NPP) adopted by the Government of India in 2000 reiterates the government's commitment to the safe motherhood program within the wider context of reproductive health. Among the national socio-demographic goals for 2010 specified by the policy, several goals pertain to safe motherhood, 80 percent of all deliveries should take place in institutions by 2010, hundred percent deliveries should be attended by trained personnel, and the maternal mortality ratio should be reduced to a level below 100 per 1,00,000 live births. Empowering women for improved health and nutrition is one of the twelve strategic themes identified in the policy to be pursued either as stand-alone programs or as intersectoral programs.

## i. SOCIO ECONOMIC VIEW

Few of the key socio economic indicators are showing clear status across all the categories interviewed like - more than 95% of the respondents belong to Hindu religion with Muslims (<2%) followed by Christians (<1%). Illiteracy is prevalent with >60% women illiterate and among the respondents, more than 50% belong to Scheduled Tribes.



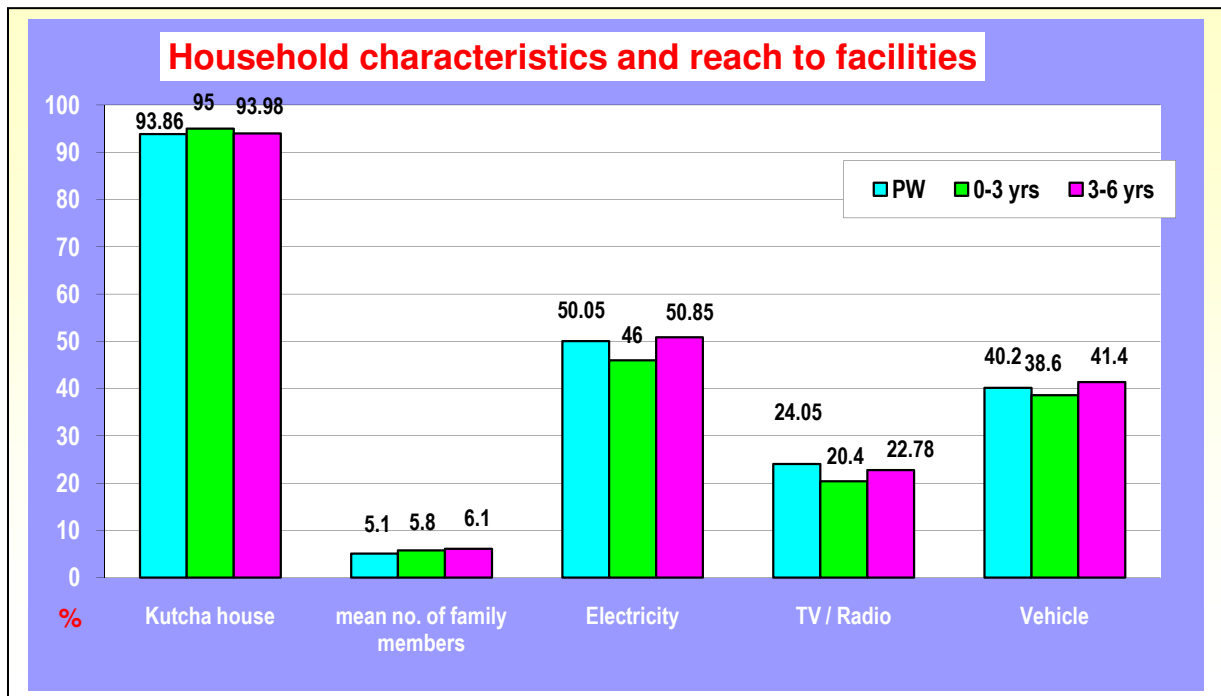
When queried about the benefits from govt. schemes, <20% of respondents said to have benefiting from NREGA and >55% of respondents are benefiting from PDS. <20% respondents having said that they are engaged in any of the income generation activities. When the pregnant women and mothers of children less than 6 years were asked about their interest in becoming a member of SHG, opting for livelihood options and skill building related to the particular option, among agriculture, dairy, livestock, organic farming and others the respondents clearly opted for raising livestock for their livelihood, dairy, agriculture and others. More than 50% women wanted to be a member of SHG. >40% respondents have <Rs.2500 monthly income and only <15% respondents said to have a bank account.



## ii. HOUSEHOLD CHARACTERISTICS & ACCESS TO AMENITIES / FACILITIES

More than 90% of respondents reside in kutchha house with mean number of family members ranging from 5 – 6 % (similar to the NFHS III findings). Among the various source of water like water tap, well, hand pump and pond >70% respondents have easy access to hand pumps followed by use of well (>50%), pond (<10%) and <3% respondents said to have access to water tap whereas NFHS III findings state that 8.1% households in rural areas use piped drinking water in the state of Madhya Pradesh.

Looking into the sanitation aspects within the rural community, <5% respondents said to have latrine whereas NFHS III findings state 9.6% for state of Madhya Pradesh and DLHS 3 reports 10.1% households having access to toilet facility. When the respondents were queried about use of fuel for cooking at their households (kerosene oil, LPG gas, wood and coal), wood is being used by >95% of respondents for cooking purpose.



If we compare with the NFHS III data for households with electricity then the sample area (Sidhi and Shahdol) is way behind. As per NFHS III, 71% of households have electricity in the state of Madhya Pradesh and 62.1% in rural areas. As per DLHS 3 findings, 75.6% HH have access to electricity and 70.4% in rural areas have access to electricity. Whereas, as per the Baseline Survey, <50% households have electricity. Owning TV / Radio, the findings of Baseline survey are in line with the NFHS III findings (19.9% for rural areas).

10.2 % households in Madhya Pradesh, especially in rural areas have a vehicle as per the NFHS III findings whereas, as per the Baseline Survey, >35% respondents have said to own a vehicle.

## iii. MOTHER AND CHILD HEALTH

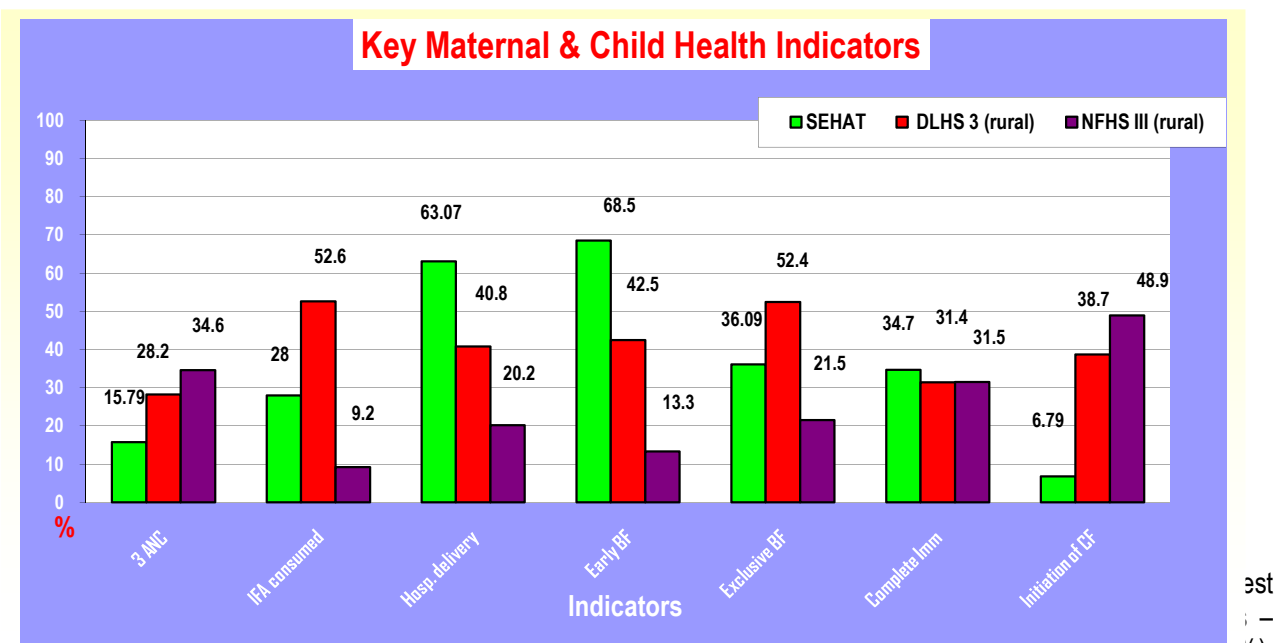


Promotion of maternal and child health is one of the key important components of the SEHAT which reiterates the commitment to the safe motherhood program within the wider context of reproductive health. It is well established that maternal care includes care during pregnancy and should begin from the early stages of pregnancy. Women can access antenatal care services either by visiting a Anganwadi during VHND or health center or from health workers during their domiciliary visits. The former gives an idea about the voluntary utilization of the services by women while the latter is related to the quality aspect of the services. One of the most important components of antenatal care is to offer information and advice to women about pregnancy related complications and possible curative measures for early detection and management of complications. Antenatal care can also play a critical role in preparing a woman and her family for birth by establishing confidence between the woman and her health care provider and by individualizing promotional health messages. Further antenatal visits may raise awareness about the need for care during delivery or give women and their families a familiarity with health facilities that enables them to seek help more efficiently during a crisis

### i. ANTE NATAL CARE

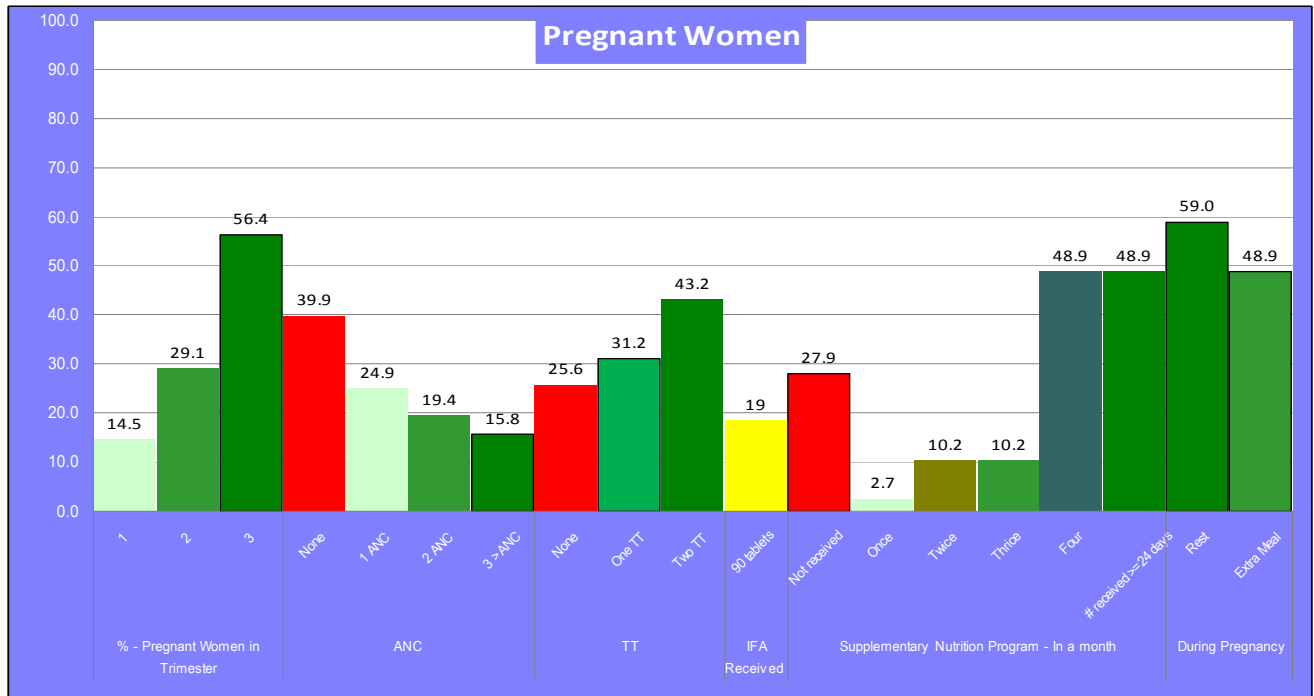
As a pregnant woman, one needs to go for regular prenatal care. Such medical checkups and the necessary screening tests assist in keeping both the mother and the child safe and healthy. Prenatal care would also include counseling and education regarding the manner in which the mother should handle several pregnancy aspects. During such visits, the care giver would put on board several issues such as physical activity, healthy eating, the kind of screening test the mother may need to undergo and what the mother should expect during labor and delivery. There has been evidence that pregnant women who regularly go for prenatal checkups end up with a healthier pregnancies and babies

As per the Baseline Survey, pregnant women who have received at least 3 ANC's depict poor status with only 15.79% findings whereas DLHS 3 for the state of Madhya Pradesh shows 28.2% and NFHS III shows 34.6 pregnant women received at least 3 ANC's. IFA consumption (41.2%) shows an upward trend in comparison to the NFHS III findings (9.2%) but less than DLHS 3 findings (52.6%). TT vaccination as per the Baseline findings depict that 43% have received two TTs and 31% have received one TT. Moreover 25.6% of the respondents said to have not received any shots of TT.

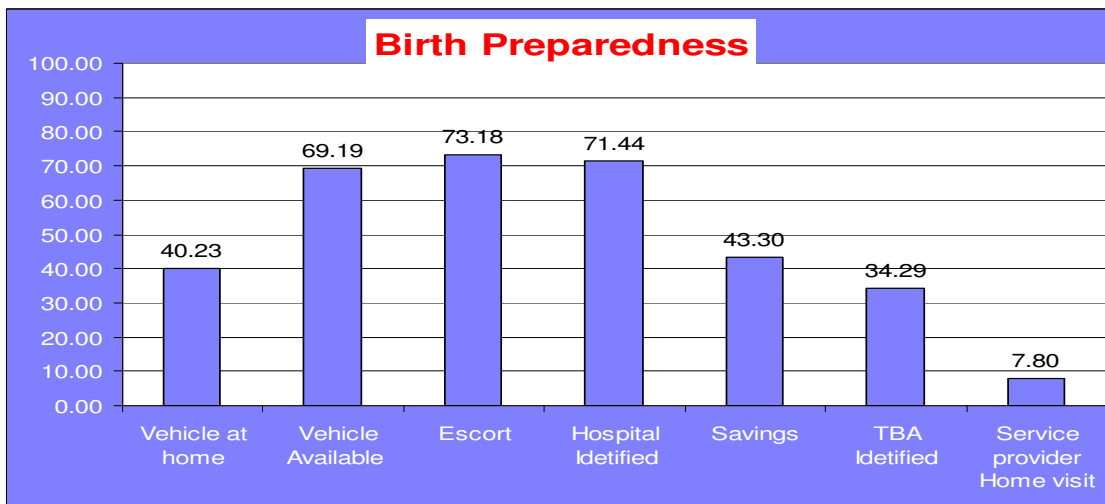


availability of female (90.2%), identification of accompanying person (70.2%), identification of hospital (71.1%);

saved money (43.3%) and identification of TBA (34.3%). Further with above indicators, home visit by service provider depicts very poor status with only 7.8% in the third trimester. Only 48.9% respondents said to have received  $\geq 24$  days of SNP and 27.9% have not at all received SNP. Out of the pregnant women who were high risk (7.9%); only 20.8% said that they went for referral and that too 87.5% out of high risk pregnant women went to quacks with only 6.25% respondents going to health center.



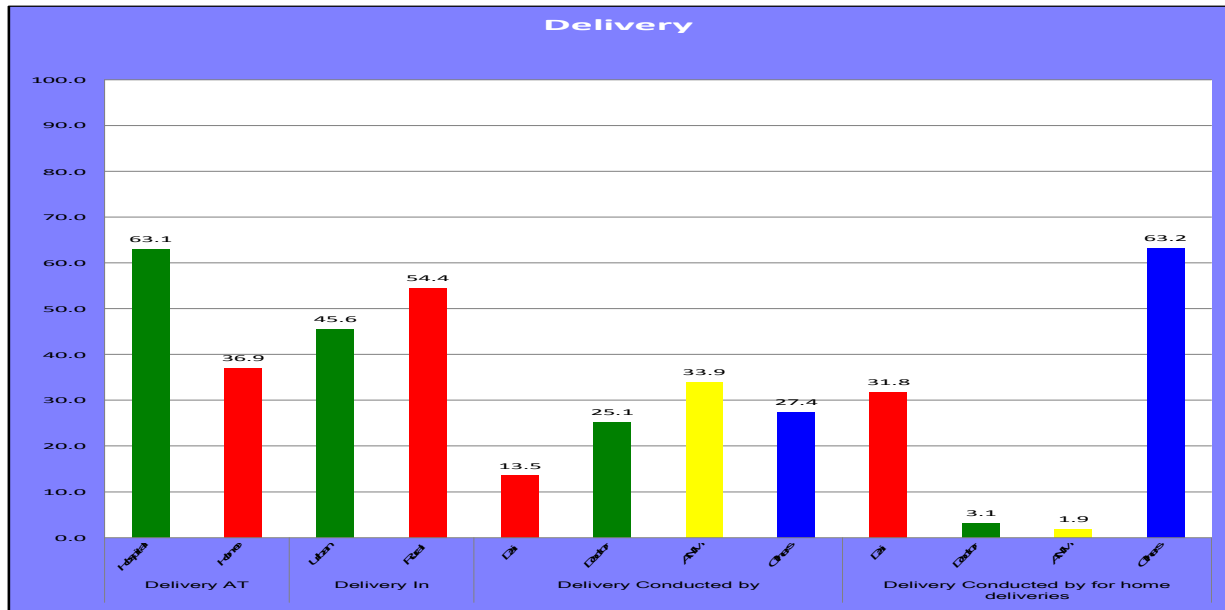
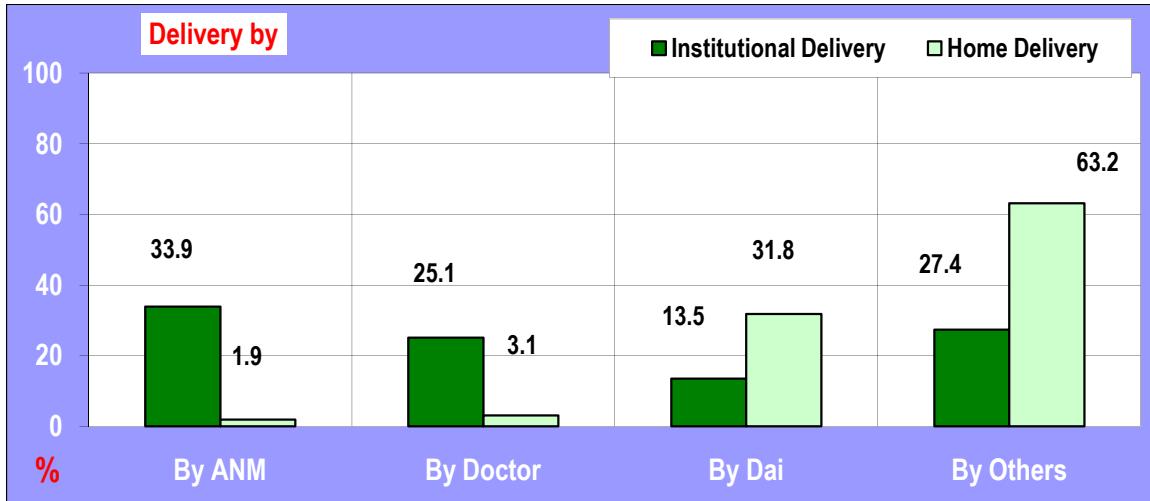
### Birth Preparedness:



### INSTITUTIONAL DELIVERY

Despite the improvements in child survival over the past 25 years, there is still virtually no effective health care system for newborns in many developing countries. There are estimated 4 million neonatal deaths worldwide each year. Moreover it is estimated to account for 40% of under-five deaths and two thirds of infant deaths. A vast majority of these deaths occur in developing countries where 43% of births are attended by traditional birth attendants, the

proportion is generally higher in rural areas. NRHM has been working constantly on the issues of birth preparedness and institutional delivery, study explored the status of institutional delivery vis-à-vis home delivery.

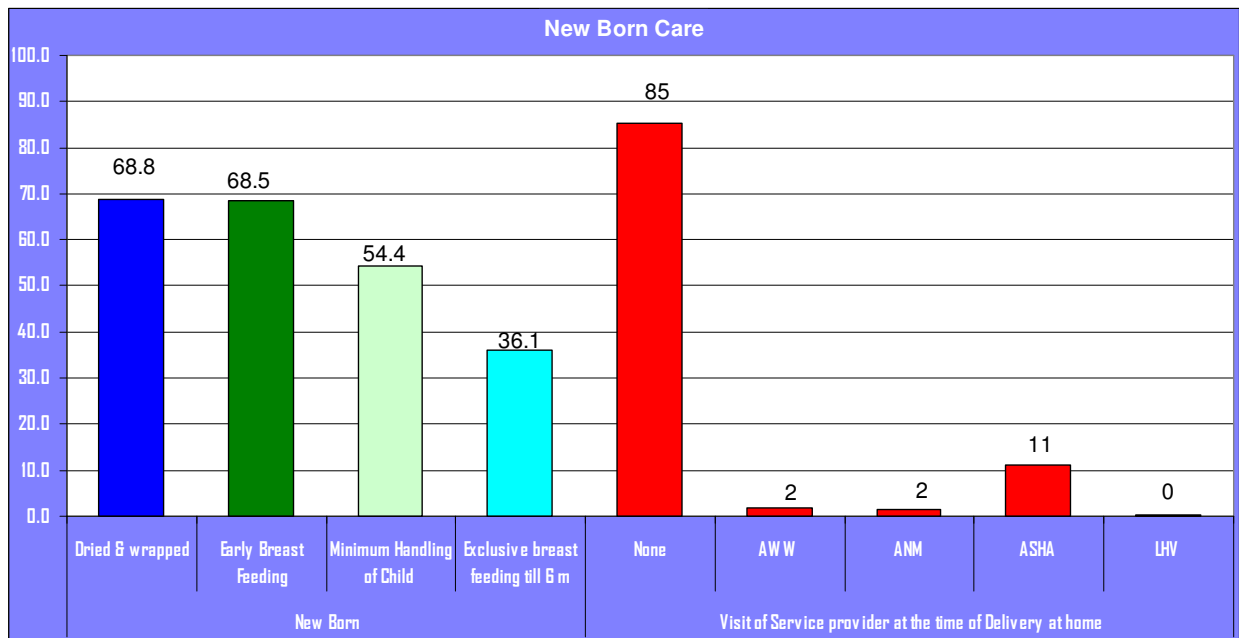


NFHS III findings report only 20.2% institutional delivery and DLHS 3 report 40.8% whereas, as per the baseline survey, 63.1% of respondents (mothers of 0 – 3yrs.) have said to have institutional delivery and 36.9% had delivery at home. In institutional deliveries, delivery conducted by ANM is highest with 33.9% followed by Doctor (25.1%), others (27.4%) and Dai (13.5%) whereas in home deliveries, delivery conducted by others is highest with 63.2% followed by 31.8% deliveries by Dai, by Doctor (3.1%) and by ANM (1.9%). 51.7% of live births were boys and 48.3% of live births were girls. Again home visit by service providers during delivery at home depicts very poor status with no visits (85%) at all. 11% visits were done by ASHA and 1.6% each by ANM and AWW.

### iii. NEW BORN CARE

The period following birth is often marked by cultural practices in Asia; some cultural practices hinder the health and survival of the newborn, like bathing the baby immediately after birth. Understanding these beliefs and practices is an important part of ensuring effective and timely care. First day after delivery is the time of highest risk for both mother and baby. 50% of neonatal mortality occurs in the first three days of life. Neonatal mortality rate in India is 39/1000 alive births which is one of the highest in the world. Nearly 2.8 million newborns die in first week.

The challenge of reducing neonatal mortality requires solutions through research to inform program innovation and action-oriented policies designed to improve newborn health. The essential newborn care should be based mainly in the community that may prove life saving for newborn.



The newborn is most sensitive to hypothermia during the stabilization period in the first 6 – 12 hours after birth. Because newborns have poor thermal insulation and small body mass to produce and conserve heat. They are also unable to change body posture in response to thermal stress. Hypothermia can easily occur if a newborn is left wet and unprotected from cold, while waiting for the placenta to be delivered. Recommended practices are to dry and wrap the newborn before the placenta is delivered. During the process of delivery of placenta newborn should be kept on a warm surface out of any draught. First bath should be given when the temp is stable. Newborn should be given to the mother as soon as possible. Early skin-to-skin contact in the initial hours after birth not only provides warmth to the baby and prevents hypothermia but also enables early breastfeeding and prevents hypoglycemia.

Child-survival programs are an integral part of the Reproductive and Child Health Program. The guidelines provided by the Program recommend that breastfeeding of children should begin immediately after childbirth and that infants should be exclusively breastfed for about the first six months of life.

Initiation of breastfeeding immediately after childbirth is important because it benefits both the mother and the infant. As soon as the infant starts suckling at the breast, the hormone oxytocin is released, resulting in uterine contractions that facilitate expulsion of the placenta and reduce the risk of postpartum hemorrhage. It is also recommended that the first breast milk (colostrum) should be given to the child rather than squeezed from the breast and discarded, because it provides natural immunity to the child.

Further one of the key interventions to ensure good nutrition status is promotion of exclusive breastfeeding for up to six months as the World Health Organization (WHO) recommends. Mothers of children born in the three years before the survey were asked if the child had been given plain water, other liquids, or solid or mushy (semi-solid) food at any time during the day or night before the interview. Children who received nothing but breast milk at any time during the day or night before the interview are defined as being exclusively breastfed.

As per the Baseline Survey, out of 1059 mothers of 0 – 5 months infants, 68.8% said that the child was dried and wrapped; 68.5% mentioned about practicing early breastfeeding whereas NFHS III findings mention 13.3% and DLHS 3 reports the finding for early breastfeeding as 42.5%.

54.5% respondents followed minimum handling of the child practice. Only 36% mothers said that their babies were exclusively breastfed. As per the NFHS III, exclusive breastfeeding indicator states 21.5% and DLHS III reports 52.4%. 69% children (0 – 3 yrs) were registered at birth.

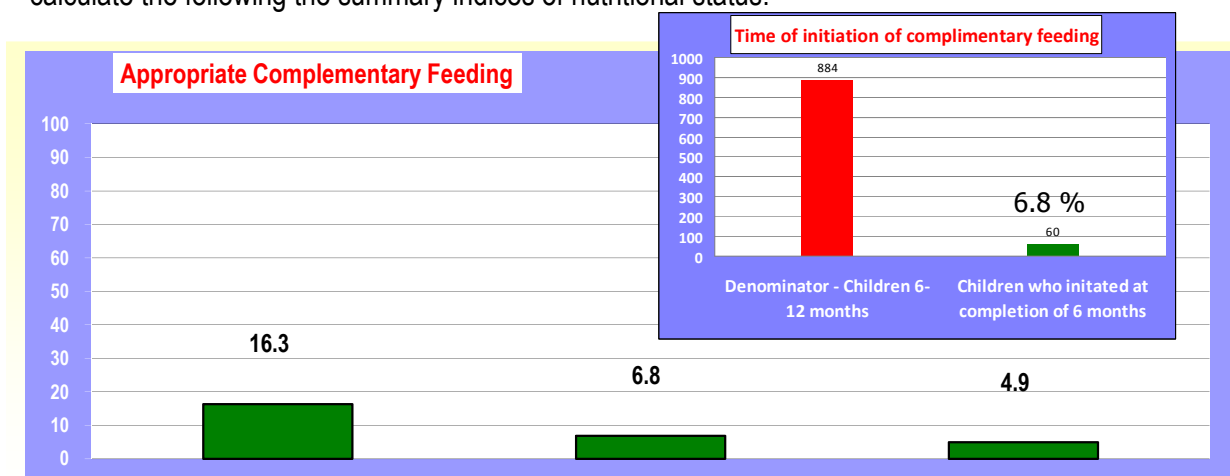
#### iv. APPROPRIATE COMPLEMENTARY FEEDING and SUPPLEMENTARY NUTRITION

WHO offers three recommendations for infant and young child feeding (IYCF) practices for children 6-23 months old: continued breastfeeding; feeding solid or semi-solid food for a minimum number of times per day according to age and breastfeeding status, and including foods from a minimum number of food groups per day according to breastfeeding status. In accordance, the study tried to assess the feeding behaviour of children aged 6-8 months, 9-11 months and 12 – 23 months children received semisolid or solid food in addition to breast milk.

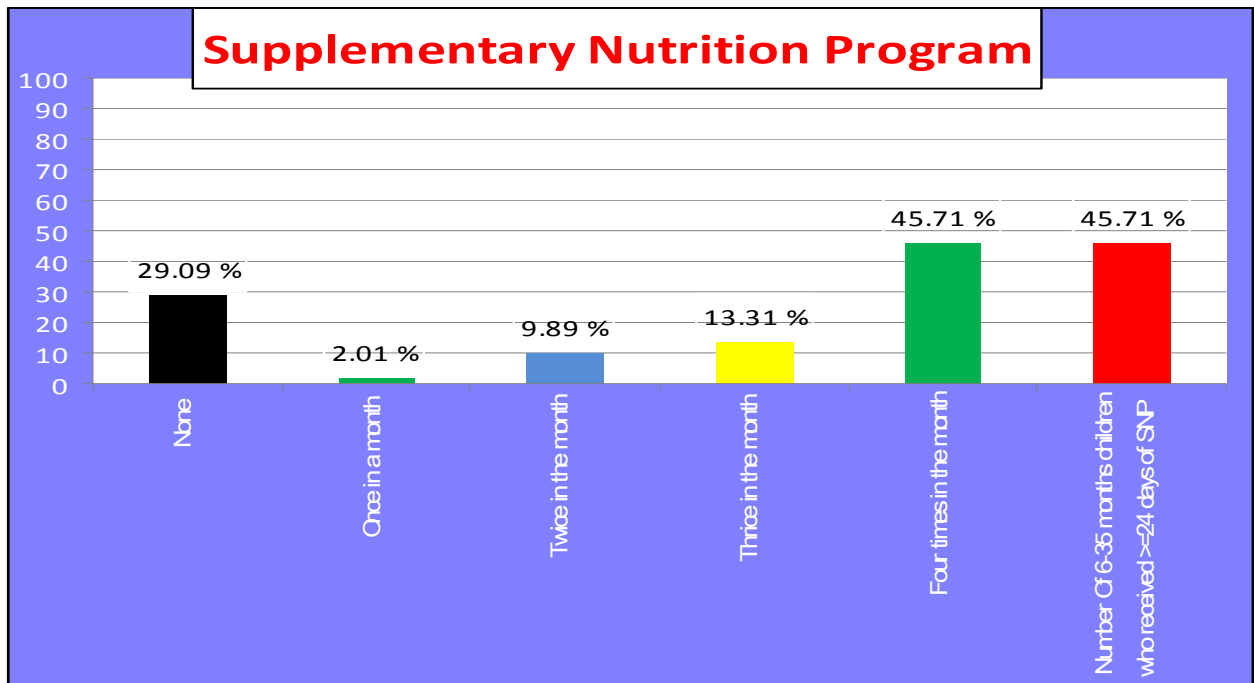
Infant and young child malnutrition has profound negative consequences on the health and development of a child and thus on society. Child malnutrition contributes to more deaths than any other health condition, globally accounting for or contributing to about six million of the 10.9 million deaths of under five children each year [Lancet 2003a]. The key objective of SEHAT is to improve the nutritional status of children. A child whose weight-for-age is less than -2 SD is considered underweight, because the chances of the child's weight being normal are less than 3 percent. Study compared the nutritional impact result as measured by WHO's new global reference standard.

Under nutrition is computed by comparing the weights of children aged 12-23 months with the distribution of observed weights in a reference population of presumed healthy children using WHO's new standard i.e. the difference between a child's weight and the median value at that age and sex in the reference population, divided by the standard deviation (SD) of the reference population.

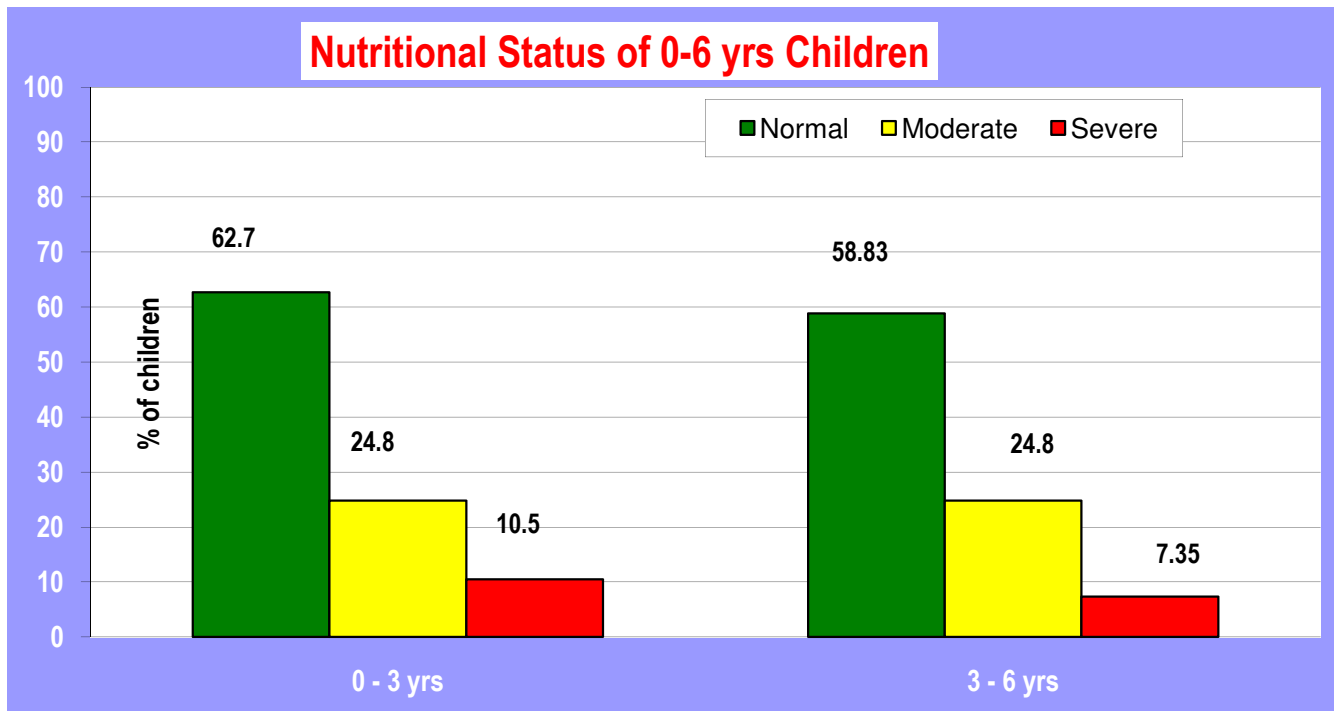
Nutritional status is a major determinant of the health and well-being of children. Inadequate or unbalanced diets and chronic illness are associated with poor nutrition among children. To assess their nutritional status, measurements of weight were obtained for children in the age group of 0-5 years preceding the survey. Children were weighed with the same type of scales. Children under two years of age were measured lying down and older children were measured standing up. Data on weight-for-age were used to calculate the following the summary indices of nutritional status.



Only 6.8% of babies (as per the respondents of 6 – 12 months babies) were initiated with complementary feeding. NFHS III findings depict 48.9% and DLHS 3 reports 38.7% babies initiated with CF. As the age progresses and baby grows, in contrast the children are not fed accordingly. Only 16.3 infants (6 – 8 months of age) were fed two katoris of semi solid food; 6.8% infants (9 – 11 months) were fed three katoris of semi solid food and hardly 4.9% infants (12 – 23 months) were fed four katoris of semi solid food. Accordingly 10.5% children (0 – 3 yrs) were found to be severely malnourished (red) and 24.8% were found to be moderately malnourished (yellow) and 62.7% children in normal category (green). 29% children (6 – 35 months of age) did not receive SNP and only 45.7% children received  $\geq 24$  days of SNP as per the respondents.



In the age group of 3 – 6 years children, 7.35% children were found to be severely malnourished, 24.8% moderately nourished and 58.83% children were found to be in normal category (green). 20.5% children (3 – 6 yrs age) received  $\geq 24$  days of SNP.

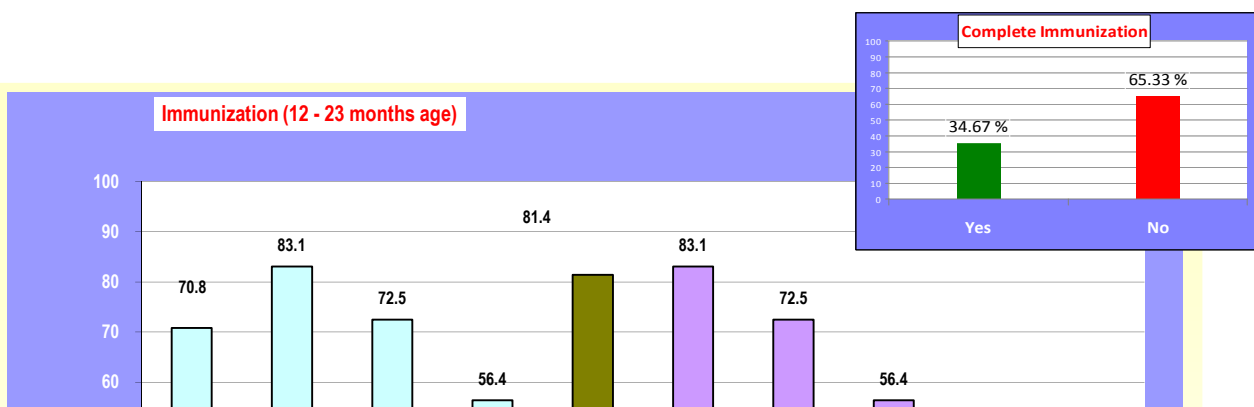


#### v. COMPLETE IMMUNIZATION

Universal immunization of children against common vaccine preventable diseases has long been a goal of the Universal Immunization Programme and the National Population Policy, 2000, has now reiterated this goal. India's Immunization Program is one of the largest in the world in terms of quantities of vaccines used, numbers of beneficiaries, and the numbers of immunization sessions organized, the geographical spread and diversity of areas covered.

Under the immunization program, six vaccines are used to protect children and pregnant mothers against Tuberculosis, Diphtheria, Pertussis, Polio, Measles and Tetanus. Study made an attempt to explore the immunization status of children and in order to do so the status of immunization of children 12-23 months old for different vaccines was measured through recall method or vaccination card.

Vitamin A deficiency, which is one of the most common nutritional deficiency disorders in the world, is closely associated with night blindness. Vitamin A deficiency can cause eye damage and a higher risk of dying from measles, diarrhoea, or malaria. The National Programme on Prevention of Blindness targets children under age five years and administers oral doses of vitamin A every six months, starting at age nine months. The Government of India recommends that children under five years receive Vitamin A supplements every six months, starting at age 9 months. In last few years, GoMP conducts special mop up campaign called "shishu shanrakshn mah" for achieving the target along with development partner organization every six months.



Interestingly, this is the only indicator, which has not fluctuated much in the swing between findings of baseline survey (34.7%), DLHS 3 (31.4%) and NFHS III (31.5%). Coverage of each individual vaccination is much higher than the percentage fully vaccinated.

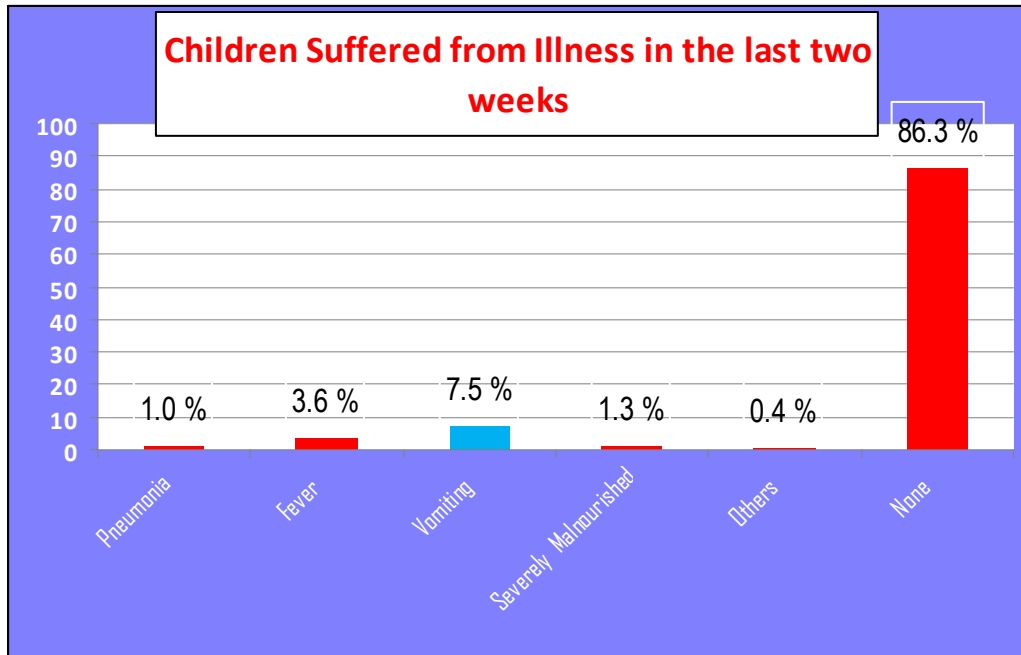
Further, only 11.4% children (12 – 23 months) have received 2 doses of Vitamin A. Pediatric IFA (90 tablets or equivalent) has not been at all received by any child (respondents were mothers of 24 – 35 months infants).

As per the respondents (mothers of 36 – 71 months children), only 37.32% were called / informed about immunization of their children. 20.4% children received DT booster. Out of 770 (60 – 72 months children) only 38 (0.05%) received 5 doses of Vitamin A.

#### vi. **CHILD ILLNESS, FEEDING DURING ILLNESS & REFERRAL**

As the Indian summer was at its peak during the survey, 86.3% mothers (0 – 3 yrs children) said that their children did not fall ill in last two weeks (from date of survey). However, out of the remaining 13.7 % ill children, 7.5% vomited, 3.6% suffered from fever. Taking the number of sick children as denominator, 75.6% children were referred by service provider due to which 82% out of referred children went to Health center and 17.8% went to others with <1% going to quacks.





Similarly, 87.96% children (3 – 6 yrs age) did not suffer from any illness in last two weeks (from date of survey). The children who were sick, 6.97% were suffering due to severe malnourishment and 2.7% suffered from diarrhea. Service providers referred 78% of sick children. Out of which 89% were referred to Health center. As per the survey, 74% sick children were fed during illness.

#### vii. NON-FORMAL EDUCATION (PSE)

93.25% respondents said that their children (3 – 6 yrs age) were registered for PSE at AWC and 5.56% were registered at any private school followed by 1.19% children who were not registered at all. 48.34% of the respondents (mothers of 3 – 6 yrs children) said that they are satisfied with preschool education provided at AWC.

