

## Impact Assessment of ICDS in Madhya Pradesh



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## TABLE OF CONTENTS

*List of Tables*

*List of Charts*

*List of Figures*

*Abbreviations*

### EXECUTIVE SUMMARY

	PAGE NUMBER
<b>CHAPTER I: BACKGROUND OF THE STUDY</b>	<b>01-10</b>
1.1 Introduction to the Study	
1.2 Integrated Child and Development Services (ICDS): An Overview	
1.3 Services of ICDS	
1.3.1 Supplementary Nutrition (Children up to 6 years of age, expectant and nursing women)	
1.3.2 Pre- school education (3 to 6 years of age)	
1.3.3 Immunization	
1.3.4 Health check-up	
1.3.5 Referral services (children, expectant and nursing mothers)	
1.3.6 Nutrition and Health Education (NHED) for the women between 15 to 45 years.	
1.4 ICDS Project in Madhya Pradesh	
1.4.1 Profile of Madhya Pradesh	
1.4.2 ICDS in Madhya Pradesh	
1.4.3 Organogram and the Project Personnel	
<b>CHAPTER II: RESEARCH DESIGN AND METHODOLOGY</b>	<b>11-23</b>
2.1 Evaluation Design	
2.2 Sample Design for Quantitative Surveys	
2.3 Research Instruments	
2.4 Anthropometrics Approach to Study Nutrition	
2.4.1 Weight-for-Age (W/A)	
2.4.2 Body Mass Index (BMI)	
2.4.3. Anemia Testing	
2.5 Field Survey	
2.5.1 Sampling of Project Areas	
2.5.2 Household Listing-Mapping	
2.5.3 Training of Field Investigators for Data Collection	
2.5.4 Main Field Survey	
2.6 Quality Assurance	
2.7 Visit of Experts in the Field	
2.8 Literature Review	
<b>CHAPTER III: PROFILE OF HOUSEHOLDS</b>	<b>24-34</b>
3.1 Demographic Profile	
3.2 Educational Profile	
3.3 Social Profile	
3.4 Economic Profile	



- 3.5 Household Facilities
- 3.6 Asset Profile
- 3.7 Standard of Living Index
- 3.8 Family Members Profile

#### **CHAPTER IV: PROFILE OF SURVEY RESPONDENTS** \_\_\_\_\_ 35-50

- 4.1 Pregnant Women
  - 4.1.1 Age Distribution of Pregnant Women Respondents
  - 4.1.2 Age at marriage of Pregnant Women Respondents
  - 4.1.3 Educational Status of Pregnant Women Respondents
  - 4.1.4 Education of Husband of Pregnant Women Respondents
  - 4.1.5 Reproductive Profile of Pregnant Women Respondents
- 4.2 Lactating Women
  - 4.2.1 Age Profile of Lactating Women Respondents
  - 4.2.2 Age at marriage of Lactating Women Respondents
  - 4.2.3 Educational Status of Lactating Women Respondents
  - 4.2.4 Education of Husband of Lactating Women Respondents
  - 4.2.5 Reproductive Profile of Lactating Women Respondents
- 4.3 Mother of 6 month-3 year old child
  - 4.3.1 Age Profile of Mother of 6 month-3 year old child Respondents
  - 4.3.2 Age at Marriage of Mother of 6 month-3 year old child Respondents
  - 4.3.3 Educational Status of Mother of 6 month-3 year old child Respondents
  - 4.3.4 Education of Husband of Respondent of Mother of 6 month-3 year old child Respondents
  - 4.3.5 Reproductive Profile of Mother of 6 month-3 year old child Respondents
- 4.4 Mother of 3-6 year old child
  - 4.4.1 Age Profile of Mother of 3-6 year old child
  - 4.4.2 Age at Marriage of Mother of 3-6 year old child
  - 4.4.3 Educational Status of Mother of 3-6 year old child
  - 4.4.4 Education of Husband of Mother of 3-6 year old child
  - 4.4.5 Reproductive Profile of Mother of 3-6 year old child
- 4.5 Adolescent Girls
  - 4.5.1 Age Profile of Adolescent Girls
  - 4.5.2 Educational Status of Adolescent Girls
  - 4.5.3 Marital Status of Adolescent Girls

#### **CHAPTER V: AWARENESS OF AWC AND ITS SERVICES** \_\_\_\_\_ 51-59

- 5.1 Awareness and access to AWC
- 5.2 Ever Utilization of Services
- 5.3 Knowledge of Schemes under ICDS

#### **CHAPTER VI: ANTENATAL CARE** \_\_\_\_\_ 60-63

- 6.1 Type and source of antenatal care services received
- 6.2 Advice during pregnancy
- 6.3 Source of information about antenatal care



<b>CHAPTER VII: SUPPLEMENTARY NUTRITION</b>	<b>64-70</b>
7.1 Coverage and Consumption of Supplementary Food	
7.2 Perceptions on quantity and quality of supplementary food received	
7.3 Reasons for not receiving supplementary food from AWC	
<b>CHAPTER VIII: DELIVERY AND NEWBORN CARE</b>	<b>71-77</b>
8.1 Advice for delivery care	
8.2 Place of home delivery	
8.3 Assistance during delivery	
8.4 Safe delivery practices	
8.5 Postnatal care	
<b>CHAPTER IX: INFANT AND CHILD FEEDING PRACTICES</b>	<b>78-84</b>
9.1 Breastfeeding Practices	
9.2 Age at initiation of complementary feeds	
9.3 Type of complementary feeds given	
9.4 Frequency and quantity of feeds	
<b>CHAPTER X: CHILD HEALTH</b>	<b>85-89</b>
10.1 Child Immunization	
10.1.1 Vaccination	
10.1.2 Place for Immunization	
10.1.3 Reasons for non-immunization	
10.2 Childhood Illnesses	
10.2.1 Incidence of Childhood Illnesses	
10.2.2 Feeding Practices during/after Illness	
10.2.3 Treatment Seeking Behaviour	
<b>CHAPTER XI: PRE-SCHOOL EDUCATION</b>	<b>90-94</b>
11.1 Registration and Attendance at AWC	
11.2 Services at AWC	
11.2.1 Food	
11.2.2 Basic Education	
11.2.3 Health Check up	
<b>CHAPTER XII: HEALTH AND NUTRITION OF ADOLESCENT GIRLS</b>	<b>95-102</b>
12.1 Knowledge of Anganwadi Services and Schemes for Adolescent Girls	
12.2 Food Intake	
12.3 Iron Supplementation	
12.4 Awareness about Health and Nutrition	
12.5 Perceptions on Age at marriage	
12.6 Hygiene and Sanitation Practices	



**CHAPTER XII-A: BENEFICIARY-WISE SUMMATIVE FINDINGS** 103-115

- 12A.1 Key Findings – Pregnant Women
- 12A.2 Key Findings – Lactating Women
- 12A.3 Key Findings – Mother of 6 months to 3 year Old Child
- 12A.4 Key Findings – Mother of 3-6 year old child
- 12A.5 Key Findings – Adolescent Girls

**CHAPTER XIII: DIAGNOSTICS ON SERVICE DELIVERY MECHANISM** 116-120

- 13.1 Infrastructure of AWCs
  - 13.1.1 Building of Anganwadi
  - 13.1.2 Drinking Water Facility
  - 13.1.3 Toilets
- 13.2 Supplies
  - 13.2.1 Pre-school kit
  - 13.2.2 IEC/training materials
  - 13.2.3 Medicine kits
  - 13.2.4 Growth Charts
- 13.3 Equipments
  - 13.3.1 Weighing Machine
- 13.4 Supplementary Nutrition (SN)
  - 13.4.1 Procurement and Supply
  - 13.4.2 Storage
  - 13.4.3 Availability of ration at AWC level
  - 13.4.4 Quality, Quantity and Acceptance of the Food by the Community
  - 13.4.5 Monitoring of the Ration

**CHAPTER XIV: PROGRAMME MANAGEMENT** 121-135

- 14.1 Human Resources
  - 14.1.1 CDPO and ACDPOs
  - 14.1.2 Profile & Qualification of AWWs
  - 14.1.3 Anganwadi Helpers
- 14.2 Capacity Development & Training
  - 14.2.1 Training Institutions
  - 14.2.2 Training of CDPO, Supervisor and AWW
  - 14.2.3 Anganwadi Workers Training Centers – AWTCs
- 14.3 Monitoring & Supervision
  - 14.3.1 Central Level
  - 14.3.2 State Level
  - 14.3.3 Block Level
  - 14.3.4 Village Level (Sector and Anganwadi Level)
- 14.4 Skills, Knowledge & Problems of Frontline Personnel
  - 14.4.1 Nutrition and Health Education for Pregnant Women
  - 14.4.2 Early Childhood Care to Lactating Mothers
  - 14.4.3 Home Visits
  - 14.4.4 Growth Monitoring
  - 14.4.5 Referral Services



- 14.4.6 Workload
- 14.4.7 Problems & Issues faced by CDPO, Supervisor & AWW
- 14.5 Inclusion/Exclusion from AWC
  - 14.5.1 Coverage
  - 14.5.2 Geographic Exclusion
  - 14.5.3 Social Exclusion
  - 14.5.4 View of the Panchayat members on Exclusion
- 14.6 Primitive Tribes in Madhya Pradesh and ICDS

#### **CHAPTER XV: CONVERGENCE/COORDINATION WITH OTHER DEPARTMENTS AND SCHEMES UNDER ICDS\_\_ 136-144**

- 15.1 Health and Family Welfare
  - 15.1.1 Visits of ANM in AWCs for Immunization & Other Health Related Services
  - 15.1.2 Village Health Education Day (VHED)
  - 15.1.3 Referral Services
  - 15.1.4 Nutritional Rehabilitation Centers (NRC)
- 15.2 Department of Panchayat and Rural Development
  - 15.2.1 Panchayati Raj Institution (PRI)
  - 15.2.2 Role in Mitigating Malnutrition
  - 15.2.3 Role in construction of Anganwadi centers
  - 15.2.4 National Rural Employment Guarantee Scheme (NREGS)
- 15.3 Department of Education
- 15.4 Department of Food and Public Distribution
- 15.5 Schemes under ICDS
  - 15.5.1 Mangal Diwas Yojna
  - 15.5.2 Naveen Poorak Poshan
  - 15.5.3 Bal Sanjeevni Abhiyan

#### **CHAPTER XVI: SERVICE DELIVERY AT ICDS THROUGH A COMPREHENSIVE OVERVIEW OF COST ANALYSIS, INOVATIVE MODELS AND SWOT ANALYSIS \_\_\_\_\_ 145-154**

- 16.1 Cost Analysis
  - 16.1.1 Financial Norms under the Existing Interventions in ICDS
  - 16.1.2 Details of the Cost Norms
  - 16.1.3 Budgetary Provisions for the ICDS and Schemes
  - 16.1.4 Cost Component Analysis
  - 16.1.5 Analysis of Efficiency of Service Delivery
- 16.2 Existing Models for Implementing and Strengthening ICDS Programme
  - 16.2.1 Models showcasing Direct Implementation of ICDS Programme
  - 16.2.2 Long Term Technical Assistance to ICDS for Implementing the Programme
- 16.3 SWOT Analysis

#### **CHAPTER XVII: IMPACT INDICATORS – MALNUTRITION AND ANEMIA \_\_\_\_\_ 155-167**

- 17.1 Malnutrition
  - 17.1.1 Severely Underweight Children
  - 17.1.2 Tracking Impact: Stunting
  - 17.1.3 Stunting: Exploring Pattern by Gender
  - 17.1.4 Malnutrition: Exploring Pattern by Gender



- 17.1.5 Malnutrition: Exploring Pattern by Caste Categories
- 17.1.6 Exploring High Burden Malnourished Area/Pockets
- 17.2 Anemia
  - 17.2.1 Prevalence of Anemia in Adolescent
  - 17.2.2 Prevalence of Anemia by Maternity Status

**CHAPTER XVIII: RECOMMENDATIONS** \_\_\_\_\_ **168-177**

- 18.1 Need for a Paradigm/Strategic Shift
  - 18.1.1 Prerequisite for Paradigm Shift
- 18.2 Localized Food Model Strategy
- 18.3 Building Operational Efficiency: Strengthening existing infrastructure and support for robust monitoring and supervision

**ANNEXURE**



**List of Tables**

Table 1.1: Details of services delivered by ICDS..... 6

Table 1.2: Demographic, Socio-economic and Health profile of Madhya Pradesh ..... 7

Table 1.3: Norms to open an Anganwadi Centre in MP..... 8

Table 1.4: ICDS project implementing by Panchayat/NGO ..... 9

Table 2.1: Indicator values of selected indicators of Madhya Pradesh for Scenario II ..... 13

Table 2.2: Sample size and sample size after inflation ..... 14

Table 2.3: Sample Size for the qualitative study..... 15

Table 2.4: Research Instruments..... 15

Table 2.5: Classification of Malnutrition ..... 16

Table 2.6: Statistical Categories for BMI..... 17

Table 2.7: Category wise anthropometric test ..... 18

Table 2.8: List of sampled project areas ..... 18

Table 2.9: Teams for the survey and covered districts ..... 21

Table 2.10: Quantitative survey sample..... 21

Table 2.11: Qualitative study sample..... 21

Table 2.12: No. of project functionaries covered ..... 22

Table 3.2: Gender distribution of the Respondents (Weighted Percentage) ..... 24

Table 3.1: Age of the Respondents(Weighted Percentage) ..... 24

Table 3.3: Educational Status of the respondents(Weighted Percentage) ..... 24

Table 3.4: Level of educational attainment (Weighted Percentage) ..... 25

Table 3.5: Religion of the households (Weighted Percentage)..... 25

Table 3.6: Social Class of the Household (Weighted Percentage) ..... 26

Table 3.7: Type of houses (Weighted Percentage) ..... 26

Table 3.8: Average monthly income (Weighted Percentage) ..... 26

Table 3.9: Option for earnings, Food security, and indebtedness(Weighted Percentage) ..... 27

Table 3.10: Source of Water in HHs (Weighted Percentage) ..... 28

Table 3.11: Toilet facility (Weighted Percentage) ..... 29

Table 3.12: Cooking Fuel Used by the HHs (Weighted Percentage)..... 29

Table 3.13: Animal holding (Weighted Percentage) ..... 30

Table 3.14: Household items (Weighted Percentage) ..... 30

Table 3.15: BPL Card Holder and HHs receiving ration from PDS(Weighted Percentage) ..... 31

Table 3.16: Percent distribution of households by standard of living index(Weighted Percentage) ..... 31

Table 3.17: School going children in a household receiving benefit of mid-day meal (Weighted Percentage) ..... 33





Table 3.19: Utilization of services from Anganwadi (Weighted Percentage).....	34
Table 3.18: Children in household receiving benefits from AWC (Weighted Percentage).....	34
Table 4.1: Age Profile of the Respondents - Pregnant Women (Weighted percentage) .....	35
Table 4.2: Age at marriage of Respondents - Pregnant Women (Weighted percentage) .....	35
Table 4.3 Educational Status of the Respondents - Pregnant women (Weighted percentage).....	36
Table 4.4: Education Status of Husbands of the Respondents - Pregnant Women (Weighted percentage).....	37
Table 4.5: Live birth details of Currently Pregnant Women (Weighted percentage).....	37
Table 4.6: Still birth details of Currently Pregnant Women (Weighted percentage).....	38
Table 4.7: Abortion details of Currently Pregnant Women (Weighted percentage).....	38
Table 4.8: Age Profile of the Respondents - Lactating Women (Weighted percentage) .....	39
Table 4.9: Age at marriage - Lactating Women (Weighted percentage).....	39
Table 4.10 Educational Status of the Respondents - Lactating Women (Weighted percentage) .....	40
Table 4.11: Education Status of Husbands of the Respondents - Lactating Women (Weighted percentage).....	40
Table 4.12: Live birth details of lactating women (Weighted percentage) .....	41
Table 4.13: Still birth details of lactating women (Weighted percentage) .....	41
Table 4.14: Abortion details of lactating women (Weighted percentage).....	42
Table 4.15: Age Profile of the Respondents - Mother of 6 months to 3 year children (Weighted percentage).....	42
Table 4.16: Age at marriage - Mother of 6 months to 3 year children (Weighted percentage) .....	43
Table 4.17 Educational Status of the Respondents - Mother of 6 months to 3 year children (Weighted percentage) .....	43
Table 4.18: Education Status of Husbands of the Respondents - Mother of 6 months to 3 year children (Weighted percentage) 44	44
Table 4.19: Live birth details of Mother of 6 month-3 year old child (Weighted percentage).....	44
Table 4.20: Still birth details of Mother of 6 month-3 year old child (Weighted percentage).....	45
Table 4.21: Abortion details of Mother of 6 month-3 year old child (Weighted percentage) .....	45
Table 4.22: Age Profile of the Respondents - Mother of 3 years – 6 years old child (Weighted percentage) .....	46
Table 4.23: Age at marriage - Mother of 3 years – 6 years old child (Weighted percentage).....	46
Table 4.24: Educational Status of the Respondents - Mother of 3 years – 6 years old child (Weighted percentage).....	47
Table 4.25: Education Status of Husbands of the Respondents - Mother of 3 years – 6 years old child (Weighted percentage)..	47
Table 4.26: Live birth details of Mother of 3-6 year old child (Weighted percentage).....	48
Table 4.27: Still birth details of Mother of 3-6 year old child (Weighted percentage).....	48
Table 4.28: Abortion details of Mother of 3-6 year old child (Weighted percentage).....	49
Table 4.29: Age Profile of the Respondent - Adolescent Girls (Weighted percentage).....	49
Table 4.30: Educational Status of the Respondents - Adolescent Girls (Weighted percentage).....	50
Table 5.1: Services from AWC in past one month (Weighted percentage) .....	56
Table 6.1: Antenatal check up during pregnancy by age of respondent and birth order (Weighted percentage).....	61



Table 7.1: Supplementary nutrition by pregnant women (Weighted percentage).....	65
Table 7.2: Supplementary nutrition for pregnant women by standard of living index (Weighted percentage).....	65
Table 7.3: Supplementary Nutrition by lactating mothers (Weighted percentage).....	65
Table 7.4: Supplementary nutrition for lactating mothers by standard of living index (Weighted percentage) .....	66
Table 7.5: Supplementary Nutrition by mother of 6 month to 3 year old child (Weighted percentage).....	66
Table 7.6: Supplementary nutrition for mother of 6 month to 3 year old by standard of living index (Weighted percentage).....	66
Table 7.7: Supplementary Nutrition by mother of 3 – 6 year old child (Weighted percentage).....	67
Table 7.8: Supplementary nutrition for mother of 3 – 6 year old by standard of living index (Weighted percentage).....	67
Table 7.9 (a): Reasons for not receiving supplementary food from AWC (Weighted percentage) .....	69
Table 7.9 (b): Reasons for not receiving supplementary food from AWC (Weighted percentage) .....	69
Table 8.1: Advice received regarding breastfeeding to newborn (Weighted percentage) .....	76
Table 8.2: Practice of weighing of newborn after birth (Weighted percentage) .....	77
Table 9.1: Complementary feeding practices (Weighted percentage).....	81
Table 9.2: Type of complementary feeds given within first 6 months (Weighted percentage).....	82
Table 9.3: Number of meals given in last 24 hours by age of child (Weighted percentage).....	83
Table 9.4: Quantity of semi-solid and solid food given (Weighted percentage).....	84
Table 10.1: Child immunization (Weighted percentage) .....	86
Table 10.2: Place for vaccination (Weighted percentage) .....	87
Table 10.3: Reasons for non-immunization of children (Weighted percentage) .....	88
Table 10.4: Incidence of childhood illness in last two weeks (Weighted percentage) .....	88
Table 10.5: Feeding practices during/ after illness of child (Weighted percentage) .....	89
Table 11.1: Utilization of Pre School Education Services at AWC (Weighted percentage) .....	90
Table 11.2: Food at AWC for preschool education children (Weighted percentage).....	92
Table 11.3: Motivational activities for children at AWC (Weighted percentage) .....	93
Table 11.4: Weighing of child (Weighted percentage).....	94
Table 12.1: Services at AWC for adolescent girls who are registered at AWC (Weighted percentage).....	96
Table 12.2: Knowledge of provisions under adolescent girls scheme (Weighted percentage).....	96
Table 12.3: Source of knowledge for adolescent scheme (Weighted percentage).....	97
Table 12.4: Knowledge of adolescents on health and nutrition (Weighted percentage).....	100
Table 12.5: Knowledge and practice on hygiene and sanitation (Weighted percentage).....	102
Table 13.1: Percentage of AWCs and their Infrastructure .....	116
Table 13.2: Availability of Weighing Scale at the AWCs.....	118
Table 14.1: Training of ICDS Functionaries and Trainers.....	122
Table 14.2: Status of AWTCs and MLTCs in MP.....	123



Table 14.3: Status of Job Training.....	123
Table 14.4: Percentage of Target Beneficiaries Experienced Exclusion from Availing Services from AWCs .....	132
Table 15.1: NRC Status in Madhya Pradesh as on 31st December 2009 -Division Wise Status of NRC.....	139
Table 15.2: Different Round of Bal Sanjeevni and Malnutrition .....	144
Table 16.1: Cost Norms for Running AWCs .....	145
Table 16.2: Expenses on Programme and Programme Support.....	147
Table 16.3: Expenditure on different budget heads .....	147
Table 16.4: Expenditure on different budget heads .....	147
Table 16.5 Operational and capital expenditure ratio .....	148
Table 16.6 Benefits delivered per beneficiary.....	149
Table 17.1: Percent children underweight vis-à-vis age of child.....	156
Table 17.2: Percent of severely underweight children vis-à-vis age of children .....	157
Table 17.3: State estimates of underweight children .....	158
Table 17.4: Mean Z score for underweight by age groups .....	158
Table 17.5: Stunting vis-a-vis age of child .....	159
Table 17.6: Severely stunted children vis-a-vis age of child .....	160
Table 17.7: State estimates of stunted children.....	161
Table 17.8: Malnutrition by caste categories .....	163
Table 17.9: District-wise distribution of malnourished in the state .....	163
Table 17.10: Anaemia in adolescent.....	166
Table 17.11: Anaemia in pregnant and lactating mothers .....	167



**List of Charts**

- Chart 5.1: Awareness about AWC  
Chart 5.2: Reach of AWC  
Chart 5.3: Ever utilized services from AWC  
Chart 5.4: Services availed by pregnant women  
Chart 5.5: Services availed by lactating mothers  
Chart 5.6: Services availed by mother of 6 month to 3 year old child  
Chart 5.7: Services availed by mother of 3-6 year old child  
Chart 5.8: Awareness of pregnant women about ICDS schemes  
Chart 5.9: Awareness of lactating women about ICDS schemes  
Chart 5.10: Awareness of mother of 6 month to 3 year child about ICDS schemes  
Chart 5.11: Awareness of mother of 3-6 years child about ICDS schemes  
Chart 6.1: Type of antenatal care services during pregnancy  
Chart 6.2: Source of advice  
Chart 6.3: Advice received  
Chart 6.4: Source of knowledge about pregnancy care  
Chart 7.1: Overall Receipt of Supplementary Food  
Chart 8.1: Source of advice for delivery care  
Chart 8.2: Place of delivery  
Chart 8.2a: Place of Delivery – Institutional v/s Home  
Chart 8.2b: Place of Delivery – Govt. v/s Private  
Chart 8.3: Assistance during home delivery  
Chart 8.4: Practice of five cleans during delivery  
Chart 8.5: Advice received for postnatal care  
Chart 9.1: Colostrum feeding  
Chart 9.2 Exclusive breastfeeding in first 6 months  
Chart 9.3: Age at initiation of semi-solids or solid food  
Chart 9.4: Number of meals given in last 24 hours  
Chart 10.1 Complete Immunization (12-23 month)  
Chart 11.1: Percent distribution of children availing pre-school education by caste category  
Chart 11.2: Services at AWC for Pre School Education children  
Chart 11.3 Child ever weighed at AWC  
Chart 11.4: Preschool education services by caste categories  
Chart 12.1: Awareness of schemes among adolescents  
Chart 12.2: Source of IFA tablets  
Chart 12.3: Advice received by AWW



- Chart 12.4: Knowledge of protection from HIV/AIDS  
Chart 12.5: Knowledge of recommended age for marriage  
Chart 14.1: Sanctioned and Posted Project functionaries  
Chart 14.2 Sanctioned and Posted AWW and AWH  
Chart 14.3: Ranking of Activity by AWW  
Chart 14.4: Total Target Beneficiaries and Coverage of ICDS  
Chart 14.5 Social groups and distance from AWCs  
Chart 14.6: Social Groups and distance from AWC (2)  
Chart 14.7: Social Group Experienced Exclusion from AWCs  
Chart 16.1: Utilization of funds  
Chart 16.2: Graph depicting the rise in differences between capital and operational expenditure  
Chart 17.1 Children underweight Impact Study vis-a-vis NFHS  
Chart 17.2 Overall underweight (0-5 yrs)  
Chart 17.3 Mean z-score: Impact study vis-a-vis NFHS  
Chart 17.4 Stunting: Impact Study vis-a-vis NFHS  
Chart 17.5 Overall Stunting (0-5 yrs)  
Chart 17.6 Stunting by gender  
Chart 17.7 Malnutrition by gender  
Chart 17.8 Malnutrition by caste categories  
Chart 17.9 Anemia in adolescents  
Chart 17.10 Anemia in pregnant and lactating women

### List of Figures

- Figure 1: Organogram  
Figure 2: Sampling Process Diagram  
Figure 3: Existing models for ICDS implementation  
Figure 4: Conceptual Paradigm  
Figure 5: Schematic Representation of Recommendations for Paradigm Shift  
Figure 6 : Accountability Matrix  
Figure 7: Schematic Representation of Strategies



## ABBREVIATIONS

ACDPO	Assistant Child Development Project Officer
ANC	Antenatal care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWCs	Anganwadi Center
AWH	Anganwadi Helper
AWTC	Anganwadi Training Centre
AWW	Anganwadi workers
BCC	Behaviour Change Communication
BMI	Body Mass Index
BPL	Below Poverty Line
CD	Community Development
CDPO	Child Development Project Officer
CEO	Chief Executive Officer
DA	Dearness Allowances
DPO	District Programme Officer
FGD	Focus Group Discussion
GOI	Government of India
GoMP	Government of Madhya Pradesh
Hb	Hemoglobin
HBH	HemoCue-B haemoglobin
ICDS	Integrated Child Development Services
IEC	Information, Education and Communication
IFA	Iron Folic Acid
IMR	Infant Mortality Rate
INGOs	International Non-Government Organisation
LHV	Lady Health Visitor
LPG	Liquid Petroleum Gas
MDM	Mid Day Meal
MIS	Monitoring Information System
MLTC	Middle Level Training Centre
MMR	Maternal Mortality Rate
MO	Medical Officer
MoHFW	Ministry of Health and Family Welfare
MP	Madhya Pradesh
MPR	Monthly Progress Report
MPSPC	MP State Planning Commission
NGO	Non-Government Organisation
NHE	Nutrition and Health Education



NHED	Nutrition and Health Education Day
NHED	Nutritional Health Education Day
NIPCCD	National Institute of Public Cooperation and Child Development
NRC	Nutrition Rehabilitation Centre
NREGA	National Rural Employment Guarantee
OBC	Other Backward Class
ORS	Oral Rehydration Solution
PDS	Public Distribution System
PHC	Primary Health Centre
PMPSU	Poverty Monitoring and Policy Support Unit
PPS	Population Proportional to Size of Population
PRI	Panchayati Raj Institution
PTG	Primitive Tribal Group
RCH	Reproductive Child Health
SC	Schedule Caste
SHG	Self Help Group
SN	Supplementary Nutrition
SNP	Supplementary Nutrition Programme
ST	Schedule Tribe
TBA	Traditional Birth Attendant
THR	Take Home Ration
TT	Tetanus Toxoid
UNICEF	United Nations International Children's Emergency Fund
VHED	Village Health Education Day
WFP	World Food Programme



## Executive Summary

The Poverty Monitoring and Policy Support Unit (PMPSU) supported by DFID in Madhya Pradesh (MP), a registered Society within the MP State Planning Commission (MPSPC), Department of Planning, Economics & Statistics, Government of MP (GoMP) is mandated to support state departments in design and review of their policy initiatives and programmes. Aligned to this mandate, PMPSU has conducted “**Impact Assessment of the Integrated Child Development Services (ICDS)**”, in MP to ascertain the perception of various stakeholder(s), assess Component & Scheme wise Impact of ICDS in MP, ascertain the contribution of ICDS in reference to reduction of IMR and MMR, document innovative design and practices in the programme, Identify constraints and bottlenecks and suggest ways to improve the implementation of ICDS and draw appropriate lessons, framework and approach for the improvement in design and implementation for optimum performance.

Adopting a judicious mix of quantitative and qualitative approaches, the Impact Assessment Exercise was designed to provide diagnostic insights into the comprehensive package of services provided by ICDS i.e. Supplementary nutrition, Non-formal Pre-school Education, Immunization, Health Check-up, Referral Services and Nutrition and Health Education.

While the quantitative component provided a statistically robust estimates of key indicators, the qualitative element of the study provide a story line on cause-effect scenario. The quantitative component of the study was anchored by a comprehensive *house listing exercise* followed by *semi-structured interviews* with eligible respondents viz. Pregnant women, lactating women, Mothers of children below 3 years (> 6 months to 3 years), Mother of children of 3-6 years and Adolescent Girls. Subsequent to this Anthropometric measurement and Anemia tests were also conducted with the eligible respondents. A minimum of 1125 sample was covered under each category of eligible respondent spreaded across 10 urban and 35 rural/tribal project blocks in Madhya Pradesh. Programme level assessment on logistics, norms, guidelines and management of programme was also undertaken within this component of the study. Qualitative component of the study comprised of Focus Group Discussions with eligible clients, in-depth Discussions with Government functionaries, Social Mapping and case studies.

### Profile – Household, Family Members and Eligible Women

In all, 5582 households were covered in the study; of which, 1360 were urban; 2778 were rural and 1444 were tribal households. The various components covered under the member’s profile included demography; religion; caste/tribe; education (adult and children) and employment/income. The sample contained close to three-fourth of the total Hindu households. 28 percent households were those of tribals. Just a touch more than half of the total household respondents were found to be literate. Household level characteristics included type of house; sanitation and drinking water facilities; fuel; essential assets; land and animal holding and standard of living index. More than 60 percent households were in the low standard living condition. Tribal households accounted of 86 percent low standard of living cases. All women in the sample were eligible respondents who were entitled to the ICDS services. Such five women groups included pregnant women, lactating mothers, mothers of children (6 months to 3 years); mothers of children (3 to 6 years) and adolescent girls.

More than half of the total pregnant (at the time of survey) women were between 20 and 24 years of age while more than four-fifth of the rural and tribal pregnant women were married before the completion of 18 years of age. The level of women literacy in surveyed blocks is dismal. Perusal of reproductive history of respondent women indicates more than 10 percent incidences of still-births. Overall, rural and tribal pregnant women were found to be significantly behind their urban counterparts with respect to the essential services they are entitled to being pregnant as well as educational and social background.





Mothers of children between 6 months and 6 years of age did not have a very dissimilar data. Barring tribal mothers of 3-6 years children, more than 80 percent of the rural and tribal mothers were married in their teens. More than half of them were illiterate. 18 percent rural mothers of children between 6 months and 3 years had cases of still-birth while more than one-fifth rural mothers of 3-6 years old children reported cases of still-birth.

### Impact Indicators – Malnutrition and Anemia

Malnutrition among children occurs almost entirely during first two years of life and is virtually irreversible after that. Findings from the present study show a significant decrease of around seven percentage point in malnourished children from NFHS-III estimates (61.8 percent) to 54.1 percent in 12-23 age groups. Children's nutritional status in Madhya Pradesh has also improved since NFHS-III differentially across 36-47 aged children and children aged 48-59. A comparative assessment of nutritional impact for stunting shows that stunting had remained constant for both children less than six month and children aged 6-11 months. Thus malnutrition status across 12-23 month aged children becomes central to the reduce malnutrition among children. Findings show a significant decrease of around seven percentage point from 57.3 percent to 47.9 percent in 12-23 age groups. Children's nutritional status in Madhya Pradesh has also improved since NFHS-3 differentially across 36-47 aged children and children aged 48-59.

More than half of adolescent girl (57 percent) in Madhya Pradesh have anemia, including 39 percent with mild anemia, 18 percent with moderate anemia, and 2 percent with severe anemia. Comparison by NFHS-III estimates for 15-19 age category inferred that anemic status of the adolescent girl over last three year has remained constant highlighting the need for strategic focus to reduce anemia. Prevalence of anemia by maternity status show conforming figures with NFHS-III. About 60 percent of the pregnant women and nearly 65 percent of lactating women are anemic.

The supplementary food distribution scheme under ICDS seems to have a positive impact on improving the nutritional status of children. The study cannot differentiate as to how much the services of anganwadi contribute to the nutritional status of children since a number of other factors such as social and economic factors are also operating in the similar set up. However it is clear that ICDS definitely has a major impact on the health outcomes of women and children in the area. Improvement in health care practices such as breast feeding, infant feeding practices, hygiene and sanitation have a significant role in infant and child nutrition outcomes.

### Anganwadi Services– Awareness, Provisions and Utilization

Cumulatively, relatively more rural and tribal women than urban (across all types of beneficiary groups) were found to have ever utilized the Anganwadi services. To prevent, control and manage the needs of women and child health the state government launched different schemes for children and beneficiary mothers. These schemes are aimed at extending welfare and benefits to target beneficiaries under one umbrella for strengthening of core ICDS objectives. Owing to their pan-beneficiary relevance, the schemes most known to women were Mangal Diwas, Poorak Poshan Aahar, Bal Sanjivani Yojana and Ladli Laxmi Yojana, Janani Suraksha and Shaktiman Yojana were also reported by those who were entitled to their benefits.

Findings on awareness of different schemes among the beneficiary groups show that only 42 percent of pregnant women were aware of the *Mangal Diwas Yojana*, specifically *God Bharai Diwas*. Of these 59.2 percent of the pregnant women reported participation in celebration of *Mangal Diwas*. About 70 percent of the pregnant women were aware about *Poorak Poshan Aahar* being distributed through AWC. Of those who were aware of *Poorak Poshan Aahar*, 67 percent were receiving benefits under the scheme. Celebration of Mangal Diwas and Poorak Poshan Aahar Yojana has enhanced women participation in anganwadis.

On awareness of the Bal Sanjeevni Abhiyan, of 189 AWWs more than three-fifth of the total AWW (63 percent) reported to have information on Bal Sanjeevni Yojana. Knowledge about Bal Sanjeevni Abhiyan is relatively low



among the community. Among the pregnant women only 20 percent were found to be aware of the programme while in case of other beneficiary groups it was to very minimal. *Bal Sanjeevni Yojna* and *Naveen Purak Poshan Ahar* has been instrumental effective and produced desired result by the decrease in death of children due to malnutrition. In addition to this, the schemes like *Ladli Lakshmi Yojana* and *Kishori Balika Diwas* has reduced the gender gaps. From the data one can infer that although people do participate in the programme, they are not very known to the nomenclatures. There is considerable gap between information dissemination and the percentage of the target beneficiaries knowing about the services and availing the services.

Supplementary nutrition has been one of the core activities of ICDS. Distribution of food at the AWC serves as a stimulating factor for involvement of community members in ICDS functioning. Close to half of the total pregnant women reported receiving supplementary food from the AWC in any form (spot consumption or take away). Marginally less than half of the total lactating women reported receiving food while they were breast-feeding the child. More than 60 percent rural and tribal mothers of children between 6 months and 3 years of age reported to receive food. Around 40 percent urban mothers did not receive food from the AWC. In case of children between 3 and 6 years, around 55 percent children were found to have received food from the AWC. Thus, acceptability of supplementary nutrition is also quite high though a considerable section of beneficiaries reportedly do not avail food at AWC, indicating further need for more intense efforts towards sensitization of the community. Owing to instances of interrupted food supply, poor quality and non-diversity of food reportedly results in low attendance and drop out. Therefore, adequate resource allocation based on a realistic beneficiary assessment, timely release of budgets and procurement, supply chain management and logistics are critical to ensure a stable and adequate service delivery.

Anganwadi workers, being close to the community, provide health and nutrition education and counsel women beneficiaries on breastfeeding/infant and young feeding practices to mothers. The findings show that more than two-fifth of the total urban women had received three or more ANCs while rural women accounted for 26 percent and tribal women 16 percent. ANMs were more commonly found provider of ANC in rural and tribal blocks while urban women avail services from doctor more frequently. Rural and tribal women received the services more through AWC/AWW than SC/PHC/Hospital. Around one-third (34 percent) of the respondents had undergone anemia testing and 12 percent had undergone malaria testing during pregnancy.

More than 80 percent women had planned to go for institutional delivery. Majority of lactating women and mothers of children 6 month to 3 years delivered their last child at PHC/govt hospital while in case of mothers of children between 3 and 6 years more than half (54 percent) delivered their index child at home. The rate of colostrum feeding was found to be considerably low amongst tribal mothers- 68 percent lactating; 64 percent mothers of children (6 months and 3 years) and 52 percent mothers of children (3 and 6 years of age).

With regard to children between 6 months and three years, more than 80 percent children were found to have received vaccine of BCG, polio and DPT. But at the same time, polio and DPT vaccination coverage was observed to go down with each round. In case of children between 3 and 6 years of age, more than 90 percent children reported to receive vaccine of BCG, polio and DPT. Close to 80 percent coverage of children for vaccine against measles was found for all children (6 months to 6 years). Vaccination for vitamin A has not gained ground in the state.

Marginally more than 60 percent children between 3 and 6 years of age were found to be going to the centre for pre-school education (PSE). Apart from pre-school education, other services provided to such children included food, and health check-up. While few adolescent girls knew about schemes such as *Ladli Laxmi Yojana* and *Kishori Shakti Yojana* for adolescent girls, the awareness is relatively higher in urban blocks as compared to rural blocks. Assessment of knowledge of adolescent girls with regard to maternal and child health, around one-third of adolescent girls felt that the new born child should be fed within the first hour of birth. AWW emerged as the primary source of IFA tablets for them. They had relatively more knowledge about girl's legal age of marriage than boys.



### Anganwadi Infrastructure and Services

With the range of services being provided at AWCs, there are some pre-requisites in terms of infrastructure and basic amenities to be provided at the centre. The present state of the amenities does not present an encouraging picture. Though for the year to come panchayat is in the process of constructing buildings in 27 districts under Backward Grant scheme, whereas in 21 districts, construction of 3343 buildings has been planned from the fund of state planning.

- As of now, approximately 54 percent AWCs run from rented building while 1/4th of them run from Panchayat or State Government constructed buildings. While 3/4th of the buildings were either pucca or semi pucca, potable drinking water was available only at 77 percent of centers. 60 percent of the centers do not have toilet facilities.
- Approximately 67 percent AWW affirmed that they have the pre-school kits in their centers; however, some (37.5 percent) of them also told that kits with them are not sufficient in numbers as they were supplied long time back and by the time either they are of no use or have been lost by the children. Growth charts were available in 58.3 percent of the AWCs, however, in 44.8 percent it was not in sufficient numbers. Baby and the adult weighing machines were available in 45.3 percent of the Anganwadi centers and only 65 percent of them were found to be functioning.
- Wheat for Supplementary Nutrition (SN) is procured from PDS at the rate supplied to the BPL families and is provided to SHG. The procurement of the local food materials has been assigned to Women Self Help Groups (SHGs), Mahila Mandals or other institutions selected by the collector. According to CDPOs the main problem with SN is its inconsistent supply which necessitates management of inventory. As more than 3/4th of the CDPO interviewed indicated lack of proper storage facility, inventory management becomes a cumbersome activity.
- Growth charts were available in 58.3 percent of the AWCs.

### Perceptions on Quality and Quantity of Supplementary Food

A thorough assessment of quality and quantity and acceptance of food by community show that in approximately 52 percent of the AWCs the quality of the food was good. Our observations indicate that in approximately 70 percent of AWCs food available was sufficient in quantity while in 20 percent of the AWCs, food was less than required. Community level opinion on quality and quantity of SN does not vary much across the state, barring few anecdotal evidences of SN being not palatable to the local taste, community do have issues on the quality of the ration provided to them.

### Human Resource

The study has undertaken a critical review of the human resources issues pertinent to the implementation of ICDS in Madhya Pradesh. While there is shortfall of 20 percent of CDPO and 40 percent of ACDPO, AWW and AWH positions are more or less in place. Primary data reveals that the outreach of trainings to CDPOs has been good. 62 percent were trained on both job as well as refresher trainings. In case of supervisors and AWWs approximately 70 percent have undertaken both the job and refresher trainings. With the perspective that there are many vacant positions of CDPOs and ACDPOs and also the fact that trainings are required at different levels, it is to be noted that out of the 53 Anganwadi Training centres sanctioned, only 25 are operational.

### Monitoring, Supervision and Workload

The CDPOs are of the opinion that because of excessive involvement in administrative work they often tend to fall short of their targets. On an average every CDPO is assigned more than 20 AWCs for supervision. In terms of their work profile, most of the CDPOs consider review and verification of records and registers maintained by the AWWs to be their utmost priority during the visit to AWCs. Approximately 43 percent of AWWs cover a maximum of 20 houses on a monthly basis, whereas 22.9 percent AWW covers more than 60 houses. Counseling beneficiaries and parents of the children is one of the most important functions of the AWWs.



### Problems & Issues faced by CDPO, Supervisor & AWW

Most (65 percent) find the demand of food from the non-beneficiaries as one of the main problems. As substantial proportion (42 percent) also encounter negative interference of affluent and influential families hindering the smooth running AWCs. Lack of transportation facilities for the CDPO and Supervisors hinders their movement and makes supervision difficult. Non-involvement (also manifested as lack of interest) of the community, administrative issues, village level politics and lack of cooperation from health functionaries are some of the problems highlighted by the supervisors. There is shortage of staff in the office of CDPOs and only 50 percent of the CDPOs were found to have adequate number of staffs in their project.

### Inclusion/Exclusion from AWC

There are many Anganwadi centres which are located far from the human settlement. In case of many tribes in the state and especially in districts such as Dhar, Alirajpur and Jhabua, families primarily work as farmers, field laborers and have widely scattered villages. In many cases, the houses are located in the individual fields or in small settlements known as *falias*. Even in areas where geographically the Anganwadi is only a few steps away from the house, its services may still be unreachable for eligible target beneficiaries. There may be children, pregnant and lactating mothers who are excluded from the services of ICDS due to social reasons such as gender, caste and religion, disability and social stigma. Village level dynamics and social actors play a crucial role in excluding some sections from the ambit of Anganwadi services. In urban blocks 6.6 percent of the target beneficiary have experienced differentiation by the AWWs in providing services whereas, in rural and tribal blocks the proportion was found to be 6.2 and 5.5 percent respectively. The same phenomenon was also observed during the field visits as in some cases the marginalized communities were prevented from availing benefits.

However a close social analysis reveals that among the different social groups, SC and ST are in disadvantaged position. Only 42.94 percent of ST and 44.04 percent of SC in comparison to 47.03 and 48.22 percent of OBC and General Castes are residing within 100 metre distance from the AWC. Similar has been the case of different social categories residing more than 1000 metre distance from the AWCs. In case of STs and SCs the percentage was 5.40 and 4.74 respectively where as in case of OBC and General community was only 3.39 and 3.50 percent respectively. A close analysis of percent of the beneficiaries who experienced some form of exclusion reveals that out of the total SC, ST, OBC and General Class target beneficiaries interviewed, 7.8 percent of SC, 6.2 percent of ST, 5.8 percent of General caste and 5.4 percent of the OBC shared that they get differentiated while availing the facilities of AWCs.

### Convergence/Coordination with Other Departments

The study affirms close coordination between ICDS and health department especially at the level of PHC. However, some of the supervisors reported lack of synchronization with health department functionaries. This is mainly at the supply end. Sometime inadequate supply of vaccines at PHCs restricts relationships between the department and their movement within the community. Village Health Education Day (VHED) is organized by liaising with health personnel as well as with the involvement of panchayat and community. During health check-ups and growth monitoring, sick or malnourished children, in need of prompt medical attention, are referred to Primary Health Centres or Sub-centres though it was found that referral slips were unavailable in most AWCs (72.7 percent). There was close coordination between the NRC Centre and the ICDS project however the number of the NRC has to be increased to accommodate large number of malnourished children.

Recruitment of the AWWs, construction of AWCs, supply of supplementary nutrition, monitoring of AWCs and overall support to the AWW are some of the responsibilities assigned to the Gram Panchayat. From November 2009, the State Government has changed the existing decentralized food model in the state and has initiated *Sanjha Chulaha* – an arrangement for supplementary diet under Rural Area Integrated Child Development programme for children in the age group of 3 to 6 years and for pregnant and lactating woman on every Tuesday of the week at the Aanganwari Centre. The task of selection of the SHG for preparation of food is assigned to the Gram Panchayat. The Gram



Panchayats are also empowered to change the existing SHGs if needed. Payments of the SHG are done by the Panchayat after getting allotment from the ICDS. To undertake the construction of Anganwadi Centre building, priority is given to the Gram Panchayat as per ICDS norms. The quality of the construction undertaken by the Panchayat has been brought to question and has always been a contentious issue. Women who come to work under NREGA often face the problem of attending to children at the time of work. NREGA is empowered to provide crèche at work site which presents an opportunity to strengthen child care without compromising on economic opportunities available to the mother. However, it has been realized that no such step has been taken in the field wherein the Department of RD & PI and the ICDS have worked jointly towards this

ICDS and the Department of Education are slowly evolving a definite scope of coordination for running the AWCs efficiently. In the field survey it was observed that in many places where there was no Anganwadi building – either constructed or rented – the schools provided the space to run the Anganwadi Centre. Moreover, enrollment of all children from the AWC into primary education was ensured by the school administration. In the recent past, ICDS has had a strong liaison with the PDS and Schools to implement the *Sanja Chulha* programme in villages.

ICDS and the Public Distribution System in MP are closely linked for the supply of supplementary nutrition. '*Panjiri*' is supplied by MP Agro whereas the responsibility of supply of supplementary nutrition is undertaken in coordination with the public distribution system. In the villages the concept of *Sanja Chulha* has been introduced where the women SHG involved in the preparing Mid Day Meal also procures for the children of the anganwadi centre at subsidized rate.

ICDS on the one hand aims at reducing nutritional, medical and educational disparities as much as possible by concentrating efforts on this most vulnerable section, on the other hand, it also makes the pre-school child the focus for community involvement by growing community awareness. This is to promote and build the necessary services as an integral part of the community, thereby leading the expansion of the programme. Therefore, the ICDS programme focuses not only on health but also on strengthening the communities that nourish and support a child. Despite its self-perpetuating strategy, the ICDS programme faces many challenges in implementation, from inadequate staff and supplies to inadequate targeting of food supplementation.





## CHAPTER I

### Background of the Study

#### 1.1 Introduction to the Study

The Madhya Pradesh Strengthening Performance Management in Government is DFID supported project launched in Madhya Pradesh. The Poverty Monitoring and Policy Support Unit (PMPSU), a registered society within the Madhya Pradesh State Planning Commission (MPSPC), Department of Planning, Economics & Statistics, Government of MP (GoMP) implement one of the key components of the project, which is 'Poverty Monitoring, Policy Support, & Improvements in Monitoring and Evaluation Systems'. PMPSU support states departments in design and review of their policy initiatives and programmes and, in line with this mandate, undertake or commission specialized research on issues relating to poverty, inequality, malnourishment, gender issues and social exclusion.

The PMPSU intended to undertake the study on Impact Assessment of the Integrated Child Development Services (ICDS), in MP to:

- Ascertain the perception of various stakeholder(s) to understand the existing status of all six components of ICDS.
- Assess Component & Scheme wise Impact of ICDS in MP.
- Ascertain the contribution of ICDS in reference to reduction of IMR and MMR.
- Document innovative design and practices in the programme, managed by Government and INGOs /NGO, in few of the selected pockets of the state.
- Study schemes such as Shaktiman, and Bal Sanjeevani Abhiyan etc. in selected pockets and draw learning's from it for the implementation of the ICDS project.
- Identify constraints and bottlenecks and suggest ways to improve the implementation of ICDS. Draw appropriate lessons, framework and approach for the improvement in design and implementation for optimum performance.

The expected outcome from the study is to

- To bring out the efficiency of delivery mechanism, reach and coverage of the programme;
- To help identify constraints and bottlenecks;
- Provide pointers in terms of best practices and also identifying gaps in implementation for the department to improve the programme;
- Situation analysis of areas of extreme malnutrition in the state;
- Suggestive Model for wider dissemination

Taking lead from the available secondary literature about ICDS, the following sections delve into the objectives and services of ICDS scheme. With review of existing literature attempts were made to understand the standard norms, organizational set-up, process of monitoring, various schemes and their budgetary provisions under ICDS.

#### 1.2 Integrated Child and Development Services (ICDS): An Overview

Government of India proclaimed a **National Policy on Children** in August 1974 declaring children as, "supremely important asset". The policy provided the required framework for assigning priority to different needs of the child. The



programme of the **Integrated Child Development Services (ICDS)** was launched in 2nd October 1975 in 33 Community Development Blocks seeking to provide an integrated package of services in a convergent manner for the holistic development of the child. Today ICDS represents one of the world's largest programmes for early childhood development. It is now the foremost symbol of India's commitment to her children – India's response to the challenge of providing pre-school education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality on the other. With the commitment for universal coverage with quality, ICDS reaches out to 13.2 million expectant and nursing mothers and about 63 million children (under six years of age) of the disadvantaged groups through a network of over 946,000 village level Anganwadi Centers (AWCs) set up at the community level across 5,959 development blocks and urban slums. Of these 30.5 million children (aged three to six years) participate in centre-based pre-school activities.

The Integrated Child Development Services (ICDS), a countrywide programme of the Government of India, offers a fundamental intervention for addressing the nutrition and health problems and promoting early childhood education among the disadvantaged population of the country. Its basic objectives are:

- To improve the nutritional and health status of children in the age group 0-6 years;
- To lay the foundation for proper psychological physical and social development of the child;
- To reduce the incidence of mortality, morbidity, malnutrition and school dropout;
- To achieve effective co-ordination of policy and implementation amongst the various departments to promote child development; and
- To enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.

### 1.3 Services of ICDS

ICDS scheme is an inter-sectoral programme, which provides an integrated package of services, seeks to directly reach out to mothers (pregnant and lactating); and children, below six years, especially from vulnerable and remote areas. To achieve the objectives, the scheme is designed to provide a comprehensive package of services for early childhood care and development. ICDS consists of six basic components for service delivery details of which are as following:

- Supplementary nutrition
- Non-formal pre-school education
- Immunization
- Health Check-up
- Referral services
- Nutrition and Health Education

Since the scheme is based on the strategy of an inter-sectoral approach to the development of children, there is the coordination of the efforts of different Ministries and Departments at all levels. The three services namely immunization, health check-up and referral are delivered through public health infrastructure viz. Health Sub Centres, Primary and Community Health Centers under the Ministry of Health & Family Welfare. The ministry has indicated the norms of the health services to be attained in the project areas. The training of health personnel for the delivery of



health services envisaged in the Integrated Child Development Services projects are arranged by the Ministry of Health and Family Welfare.

### 1.3.1 Supplementary Nutrition (Children up to 6 years of age, expectant and nursing women)

Supplementary nutrition is given to children below 6 years (60 completed months) of age and to nursing and expectant mothers in accordance with guideline issued from time to time. Special attention is given to the delivery of supplementary nutrition to children below 3 years of age. The amount of nutrition varies according to the age of the child. The type of pre-processed or semi –processed food or on spot prepared food from locally available food materials depend upon the administrative feasibility as well as directives issued by the department. Supplementary nutrition is given for 300 days in a year. Children who are found as a result of health check-up to suffer from third degree of malnutrition are given enhanced supplementary nutrition (therapeutic food) based on their physical.

#### Box No.1: Revised nutritional and feeding norms

*On April 22, 2009, the Supreme Court passed a judgment directing all States and UTs to revise the nutritional and feeding norms as well as the financial norms of supplementary nutrition under the ICDS scheme. The Task Force constituted by the Central Government undertook a review of the existing nutritional and feeding norms and the financial norms of supplementary nutrition. As per the revised norms, Children in the age group of 6 months to 3 years are entitled to food supplement of 500 calories of energy and 12-15 gm protein per child per day in the form of Take Home Ration (THR). Children of age group 3-6 years are entitled to food supplement of 500 calories of energy and 12-15 gm protein per child per day in the form of hot cooked meal and a morning snack. Underweight children in the age group of 6 months to 6 years, food supplement in the form of THR will comprise of an additional 300 calories of energy and 8-10 gm of protein. Pregnant and lactating mothers are entitled to a food supplement of 600 calories of energy and 18-20 gm of protein per beneficiary per day in the form of THR.*

	Children below 3 years & Children below 3-6 years		Underweight children		Pregnant & Lactating Mothers	
	Old Norm	Revised Norm	Old Norm	Revised Norm	Old Norm	Revised Norm
Rate per beneficiary (Rs.)	2.00	4.00	2.70	6.00	2.30	5.00
Calories (cal)	300	500	600	800	500	600
Protein (g)	8-10	12-15	20	20-25	20-25	18-20

### 1.3.2 Pre- school education (3 to 6 years of age )

Children of 3-6 years have the benefit of **non-formal pre-school education** through the institution of Anganwadi in each village and in each centre in an urban project. The Anganwadi is the focal point for delivery of the entire package of child development services. Non-formal pre-school education is not to impart formal learning but to develop in the child desirable attitudes, values and behaviour patterns. No attempt is made to achieve uniformity of





teaching/learning procedure in the Anganwadi. There is flexibility and the child is encouraged and stimulated to grow at his own pace. The Anganwadi strive to satisfy the curiosity of the child and channel it in a creative direction. The Anganwadi establishes link with the elementary school so that the child moves from the Anganwadi to the school with the necessary emotional and mental preparation.

### 1.3.3 Immunization

Immunization of pregnant women and infants protects children from six vaccine preventable diseases-poliomyelitis, diphtheria, pertussis, tetanus, tuberculosis and measles. These are major preventable causes of child mortality, disability, morbidity and related malnutrition. Immunization of pregnant women against tetanus also reduces maternal and neonatal mortality. This service is delivered by the Ministry of Health and Family Welfare under its Reproductive Child Health (RCH) programme. In addition, the iron and vitamin "A" supplementation to children and pregnant women is done under the RCH programme of the Ministry of Health and Family Welfare.

### 1.3.4 Health check-up

Health Check-up and Referral Services in the Anganwadi includes:

#### 1.3.4.1 Ante natal Care of Expectant Mothers

At the ante natal clinics apart from complete physical and obstetrical examination of the mother, serial recording of weight, blood pressure hemoglobin and examinations of urine is done as a routine. Immunization against tetanus is given. Iron and folic acid tablets along with protein supplements are given. Attention is paid to the health education of the mothers on hygiene of pregnancy, breast feeding of infant and child rearing with special reference to the spacing of next child. Records of ante natal care are kept in ante natal card.

#### 1.3.4.2 Post natal Care

Still there is large percent of mothers in rural areas who deliver in their homes; and so limited post natal care is possible. Efforts are made to give post natal visits to mothers in their homes twice within the 10 days after delivery in those villages where primary health centers and sub-centers are located and villages nearby; in other areas at least one visit within the first month after delivery is aimed. In the urban projects more frequent and better post natal care are organized. These visits are utilized to check on the general health and well being of the mothers, establishment of successful breast feeding of the new born and attention to the general health of the infants. At the post natal clinic mothers are helped to adopt a suitable method for spacing the next birth or for limiting the family size as the case may be. Records of the deliveries attended by PHC personnel are kept in the relevant card.

#### 1.3.4.3 Care of children under 6 years of age

Under this, Serial records of the height and weight of children are kept with a view to keep close watch over their nutrition status, growth and development and Immunization. In every three to six months general check-up is done in order to detect diseases and other evidences of malnutrition or infection. Treatment is provided for widely prevalent diseases like diarrhoea, dysentery, upper respiratory tract infections, skin diseases, eye diseases like trachoma conjunctivitis and de-worming is done against the prevalent parasitic infections such as round worm, hookworm, and threadworm. Prophylactic measures are taken against diseases of nutritional origin like anemia, vitamin deficiencies



marasmus etc. through distribution of drugs and diet supplement. Serious cases are referred to appropriate hospital for specialized treatment.

### **1.3.5 Referral services (children, expectant and nursing mothers)**

Pregnant mothers and children with problems requiring specialized treatment are referred to the upgraded PHC/sub-division/district head quarters hospital as the case may be. The medical officer of PHC refers such cases with a referral slip prescribed for the purpose. The hospital after completing the treatment refers the mother/child back to the PHC with notes of treatment given and further treatment/advice to be followed.

### **1.3.6 Nutrition and Health Education (NHED) for the women between 15 to 45 years.**

Nutrition and health education is given to all women in the age group 15-45 years. Priority is given to nursing and expectant mothers. A special follow-up is made of mothers whose children suffer from malnutrition or from frequent illness. The methods of carrying the message of health and nutrition education are by the use of mass media and other forms of publicity, special campaign at suitable intervals, home visits by Anganwadi workers. Efforts are made to secure convergence of health and nutrition education programme of ministry of Health and Family Welfare and the schemes of non-formal education for women of other Departments/Ministries. It is expected that implementation of the scheme of non-formal education for women in the ICDS Project areas will generate general awareness and promote public participation for more effective implementation of this scheme.

In Nutshell, the Scheme provides an integrated approach for converging basic services through community-based Anganwadi workers and Anganwadi helpers. The principal beneficiaries of the ICDS scheme are children below six years, expectant and nursing mothers and adolescent girls.



Table 1.1: Details of services delivered by ICDS

Sl. No.	Type of Service	Provisions	Beneficiary
1	Supplementary Nutrition	This includes supplementary feeding and growth monitoring; and prophylaxis against vitamin A deficiency and control of nutritional anemia. Severely malnourished children are given special supplementary feeding and referred to health sub-centers, Primary Health Centers as and when required.	Children below 6 years; pregnant and lactating mothers
2	Immunization*	Provide immunization to pregnant women and children. This service is delivered by MoHFW under its Reproductive Child Health (RCH) programme. In addition, iron and vitamin "A" supplementation to children and pregnant women is done under the RCH Programme.	Children below 6 years; pregnant and lactating mothers
3	Health Check-ups*	This includes health care of children below 6 yrs of age, ANC of expectant mothers and postnatal care of nursing mothers. These services are provided through public health sector by ANMs/MOs under the RCH programme of the MoHFW. The various health services include regular health check-ups, immunization, management of malnutrition, treatment of diarrhoea, de-worming and distribution of simple medicines etc.	Children below 6 years; pregnant and lactating mothers
4	Referral*	During health check-ups and growth monitoring, sick or malnourished children, in need of prompt medical attention, are referred to the Primary Health Centre or its sub-centre.	Children below 6 years; pregnant and lactating mothers
5	Pre-School Education	This component for the 3-6 years old children in the Anganwadi is directed towards providing and ensuring a natural, joyful and stimulating environment, with emphasis on necessary inputs for optimal growth and development.	Children 3-6 years
6	Nutrition & Health Education (NHE)	This forms part of BCC (Behaviour Change Communication) strategy. This has the long term goal of capacity-building of women – especially in the age group of 15-45 years – so that they can look after their own health, nutrition and development needs as well as that of their children and families.	Women (15-45 years)

\* AWW assists ANM in identifying and mobilizing the target group

## 1.4 ICDS Project in Madhya Pradesh

### 1.4.1 Profile of Madhya Pradesh

The state Madhya Pradesh is geographically spread across a total area of 308,144sq.km. The state accounts for 9.38 percent of the land area of India and has 50 districts. 31 percent of the land area of Madhya Pradesh is covered by forests. The State has population density of 195 per sq. km. (as against the national average of 312). The Total Fertility Rate of the State is 3.4. The Infant Mortality Rate is 70 and Maternal Mortality Ratio is 335 (SRS 2004 -



2006) which are higher than the National average. The Sex Ratio in the State is 919 (as compared to 933 for the country). Comparative figures of major health and demographic indicators are as follows:

**Table1.2: Demographic, Socio-economic and Health profile of Madhya Pradesh <sup>1</sup>**

Characteristic	Madhya Pradesh	India
Total population (Census 2001) (in millions)	60.35	1028.61
Decadal Growth (Census 2001) (%)	NA*	21.54
Crude Birth Rate (SRS 2008)	28.0	22.8
Crude Death Rate (SRS 2008)	8.6	7.4
Total Fertility Rate (SRS 2007)	3.4	2.7
Infant Mortality Rate (SRS 2008)	70	53
Maternal Mortality Ratio (SRS 2004 - 2006)	335	254
Sex Ratio (Census 2001)	919	933
Population below Poverty line (%)	37.43	26.10
Schedule Caste population (in millions)	9.16	166.64
Schedule Tribe population (in millions)	12.23	84.33
Female Literacy Rate (Census 2001) (%)	50.3	53.7

\* Linear Growth Rate 24.34

### 1.4.2 ICDS in Madhya Pradesh

In the first phase of ICDS the population norms for a project in rural/urban area was 1 lakh and 35,000 for tribal area. According to new guidelines (No.F.14-1/2008-CD-1), for the blocks with more than two lakh population, that state could opt more than one Project (@ one per one lakh population) or could opt only one project. In latter case, staff could be suitably strengthened based on population or number of AWCs in the block. Similarly, for blocks with population of less than 1 lakh or so, staffing pattern of CDPO office could be less than that of a normal block.

As per 2001 Census, India's population has grown to 102.70 crore. Child population in 0-6 age group reached 15.78 crore. With the trend in migration of population from rural areas to smaller towns and metropolises, the slum population has increased drastically. In view of above developments supreme court directed to increase the number of AWCs to cover all the habitations/ settlements.

In respect of sparsely populated hilly/desert areas, there is provision for setting up an Anganwadi in every village or hamlet having a population of 400 or more. Very small villages/ hamlets with a population of less than 300 are covered by the adjoining Anganwadi. There is also a provision for setting up of Mini-Anganwadis to cover the remote and low populated hamlets/ villages in tribal blocks<sup>2</sup> having a population of 150 to 300.

<sup>1</sup> <http://www.mohfw.nic.in/NRHM/State%20Files/mp.htm#sp>

<sup>2</sup> Tribal block is an administrative arrangement of ICDS, MP and can have non-tribal population



**Box 2: Revised Population Norms for Opening AWCs**

In 2004 an *Inter-Ministerial Task Force* was constituted to review the existing population norm and suggest revised norms for setting up of a project and an Angawadi centre under the ICDS Scheme. The task force has recommended following norms for sanction of an ICDS project and on Anganwadi centre:

- (i) Community Development block in a state should be the unit for sanction of an ICDS project in Rural/Tribal areas, irrespective of number of villages/ population in it. (It may, however, be noted that if population of Development Block is very small, one ICDS project could be sanctioned for 2-3 blocks also, depending upon the number of villages, population and area to be covered.)
- (ii) The existing norm of one lakh population for sanction of urban project continued.
- (iii) As the target beneficiaries under the scheme are children below six years of age and pregnant women/lactating mothers, AWC should be so located that the beneficiaries do not have to walk more than one km to avail of services under scheme.
- (iv) The **Revised Population Norms** for setting up an Anganwadi centre are as follows:-

	Population	Sanctioned centre
For Rural Projects	500-1500	1 AWC
	150-500	1 Mini AWC
For Tribal Projects*	300-1500	1 AWC
	150-500	1 Mini AWC
For Urban Projects	500-1500	1 AWC

[\*For habitation with less than 150 populations, specific proposal should be submitted by the state governments for consideration and appropriate decision by the Government of India]

**Table 1.3: Norms to open an Anganwadi Centre in MP**

Sl. No.	Area	Required Population to Open Anganwadi
1	Rural and Urban Area	One Anganwadi in 400 to 800 population Size
2	Tribal Area	One Anganwadi in 300 to 800 population Size
3	Rural and Urban Area	One Mini Anganwadi in 150 to 400 population Size
4	Tribal Area/Majra/Tola	One Mini Anganwadi in 150 to 300 population Size

This Scheme in MP is implemented by Women and Child Development Department. These are 367 projects (313 rural and 54 urban) and 69,238 Anganwadi Centers (AWCs) and 2215 Sub centers. This year ICDS has increased the number of AWCs from 69238 to 78929. The administrative unit for the location of ICDS Project is the Community Development (CD) blocks in rural areas, tribal blocks in tribal areas and ward(s) or slums in urban areas. A total 76.31 lakh beneficiaries are taking benefits from the project. In Experimental basis two ICDS Projects have been assigned to Janpad Panchayat and two to non government organisation:



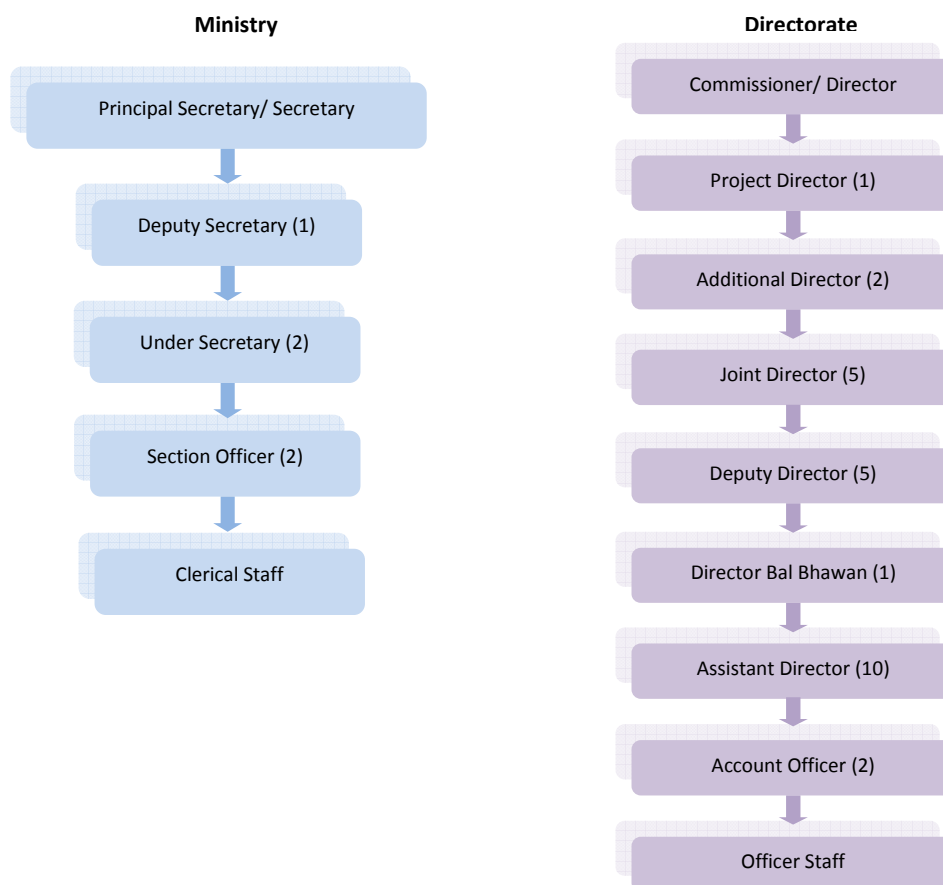
**Table 1.4: ICDS project implementing by Panchayat/NGO**

SI. No.	ICDS Project	Implementing Panchayat/NGO
1	ICDS, Tendukheda, Dist. Damoh	Janpad Panchayat Tendukheda, Dist. Damoh
2	ICDS, Sihawal, Dist. Sidhi	Janpad Panchayat Sihawal, Dist. Sidhi
3	ICDS, Indore Urban No.1	Bal Niketan Sangh, Indore
4	ICDS Gairatganj, Dist. Raisen	Sewa Bharti, Bhopal

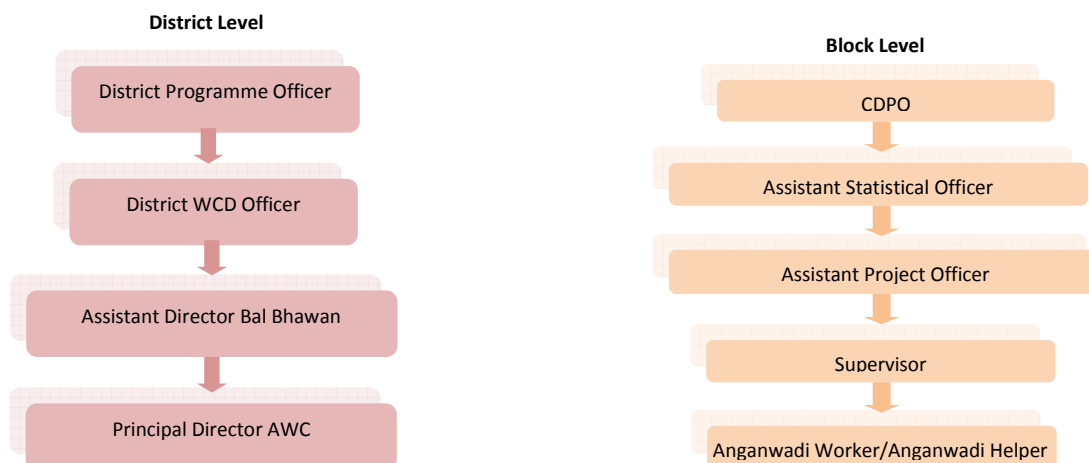
**1.4.3 Organogram and the Project Personnel**

**Figure 1: Organogram**

**Department of Women and Child Development**



**Division to Anganwadi Centre  
Divisional Level  
Joint Director (8 post)**



The ICDS team comprises of the Anganwadi helpers, Anganwadi workers, Supervisors, Child Development Project Officers (CDPOs) and District Programme Officers (DPOs). An Anganwadi means a courtyard, that is, a play centre. It is usually located within a village or a slum and is the focal point for delivery of all services provided under ICDS. All the ICDS services in the Anganwadi centre are rendered by Anganwadi worker. Anganwadi Worker, a lady selected from the local community, is a frontline worker of ICDS Programme. She is an agent of social change, mobilizing community support for better care of young children, girls and women<sup>3</sup>. She is assisted by a helper in carrying out her day-to-day activities who also is selected by the villagers. Besides, the medical officers, Auxiliary Nurse Midwife from PHCs and Health Sub-Centre form a team with the ICDS functionaries to achieve convergence of different services.

<sup>3</sup> Department of Women and Child Development, Govt. of Orissa - [http://www.wcdorissa.gov.in/Anganwadi\\_%20workers.aspx#](http://www.wcdorissa.gov.in/Anganwadi_%20workers.aspx#) (accessed on 10/10/2009)



## CHAPTER II

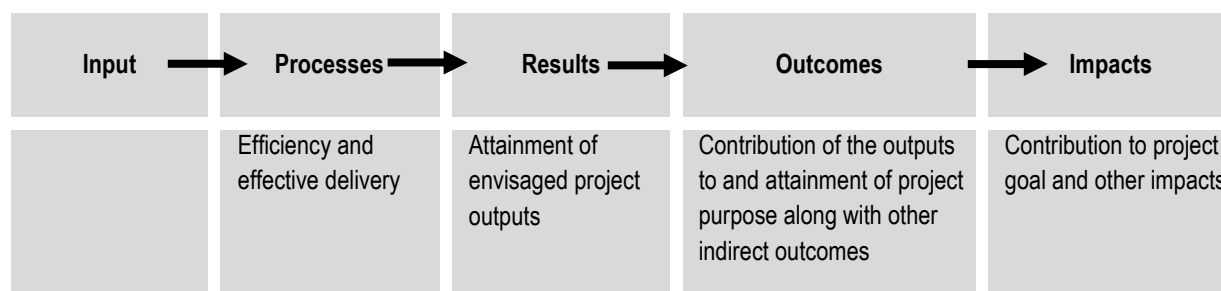
### Research Design and Methodology

#### 2.1 Evaluation Design

The study design was envisioned as a time series design. NFHS-II and III along with DLHS surveys and baseline studies (if available) has been formed the basis on comparison of estimates.

#### Overarching Evaluation Framework

The overarching framework that guided the impact assessment is the logic model which is illustrated below. However, a comprehensive impact assessment exercise went beyond this in analyzing impacts incident to the programme.



#### 2.2 Sample Design for Quantitative Surveys

##### Step I: Selection of Project Areas

Multistage sampling technique was used for selection of the ICDS project areas. At the first stage ICDS project areas across the state were segregated on the basis of urban and rural project areas. As the state of Madhya Pradesh is identified having tribal project areas, ample care was taken to select the tribal project areas along with the rural sample selection framework. From the thorough list of ICDS project areas, urban and rural/tribal separately, 10 urban and 35 rural/tribal project areas were selected using PPS method. The sample arrived based on the proportion of number of projects in urban-rural/tribal set up. The proposed sample covered about 12% of the projects from a universe of total projects running in Madhya Pradesh (i.e. total 367 projects out of which 313 are rural/tribal and 54 are urban). Meaning thereby, the selected sample were representative of the all ICDS projects in the state.

##### Step II: Selection of Anganwadi Centers

In the second stage of stratification, from 45 sampled projects, 5 Anganwadis/service centers were selected from each of the sampled project areas using simple random sampling technique.

##### Step III: Selection of Respondent within Cluster

At the last stage of stratification, the respondents were selected. In order to ascertain the universe of different categories of respondents in the area of AWC, a household enumeration exercise was conducted prior to the conduct of respondent interviews. During the household enumeration exercise, all the different categories of beneficiaries





under ICDS were counted, irrespective of the fact whether they are receiving services from the AWC or not. To facilitate the household enumeration, the AWW of the sampled Anganwadi was requested to clearly identify the boundary of her AWC. Special care was taken to ensure that those hamlets and pockets which were at a distance from the AWC and falling under the area of the AWC, but where the service coverage was low were identified and included in the house listing exercise.

The household enumeration exercise specifically identified the households which contain the following category:

- Pregnant women
- Lactating women
- Mother of child (aged more than 6 months to 3 years)
- Mother of child (between 3 years and 6 years)
- Adolescent girls (aged between 10 and 19 years)

Along with the household enumeration exercise, a detailed structure mapping exercise was also conducted. At the end of the household enumeration exercise for the entire 45 ICDS project areas, an exhaustive category wise list of different ICDS beneficiaries was prepared. This list was the sampling frame for the proposed study.

At the third stage from each AWC, 5 respondents from each respondent category were selected using a simple random sampling technique. The estimated sample size for each respondent category arrived by using statistical formula for calculating sample size, which justifies that the sample size was robust enough to measure a minimum change of 10%. To be assured about the sample size two scenarios as of following were detailed out. This needs to be appreciated that both the scenarios indicated towards sufficiency of the sample size proposed by the PMPSU.

The estimation of sample size is critical in order to calculate robust estimates for the indicators being studied. The sample size for each target group has been estimated using the following formula:

$$n = D \frac{\left[ \sqrt{2P(1-P)}Z_{1-\alpha} + \sqrt{P_1(1-P_1) + P_2(1-P_2)}Z_{1-\beta} \right]^2}{\Delta^2}$$

Where,

D = design effect;

P1 = the estimated proportion at the time of the baseline;

P2 = the proportion at some future date such that the quantity (P2 - P1) is the size of the magnitude of change it is desired to be able to detect;

P = (P1 + P2) / 2;

Z1-α = the z-score corresponding to the probability with which it is desired to be able to conclude that an observed change of size (P2 - P1) would not have occurred by chance; and,

Z1-β = the z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (P2 - P1) if one actually occurred.

α=0.05 (Z1-α = 1.65) β=0.20 (Z1-β=0.84)

To determine the necessary sample size to detect a change of 10 percentage points, change in the different indicator values, the initial value of (P1) was estimated at 50% (this being the most conservative estimate possible). The level of precision was set at 0.05 with a power of 0.80, while the design effect was set at 2. The sample size mentioned for



each group was the minimum sample size worked out for each respondent category so that the data was comparable with other target group state wise.

Using the above formula and assumptions, the sample size for each category of respondent was calculated to be 752. As the research design envisages, a sampling at the household level for different categories of respondents without any provision of replacement in case of unavailability of the respondents, the targeted sample size have to be inflated to account for non response. Looking at the number of AWCs which were proposed and the number of respondents per category to cover, the details of the number of household interviews per AWC were as follows:

**Table 2.1: Indicator values of selected indicators of Madhya Pradesh for Scenario II**

Category	Sample size
Pregnant women	$752/225=3.34$ round off to 4
Lactating women	$752/225=3.34$ round off to 4
Mother of child (aged more than 6 months to 3 years)	$752/225=3.34$ round off to 4
Mother of child (between 3 years and 6 years)	$752/225=3.34$ round off to 4
Adolescent girls (aged 10 to 19 years)	$752/225=3.34$ round off to 4

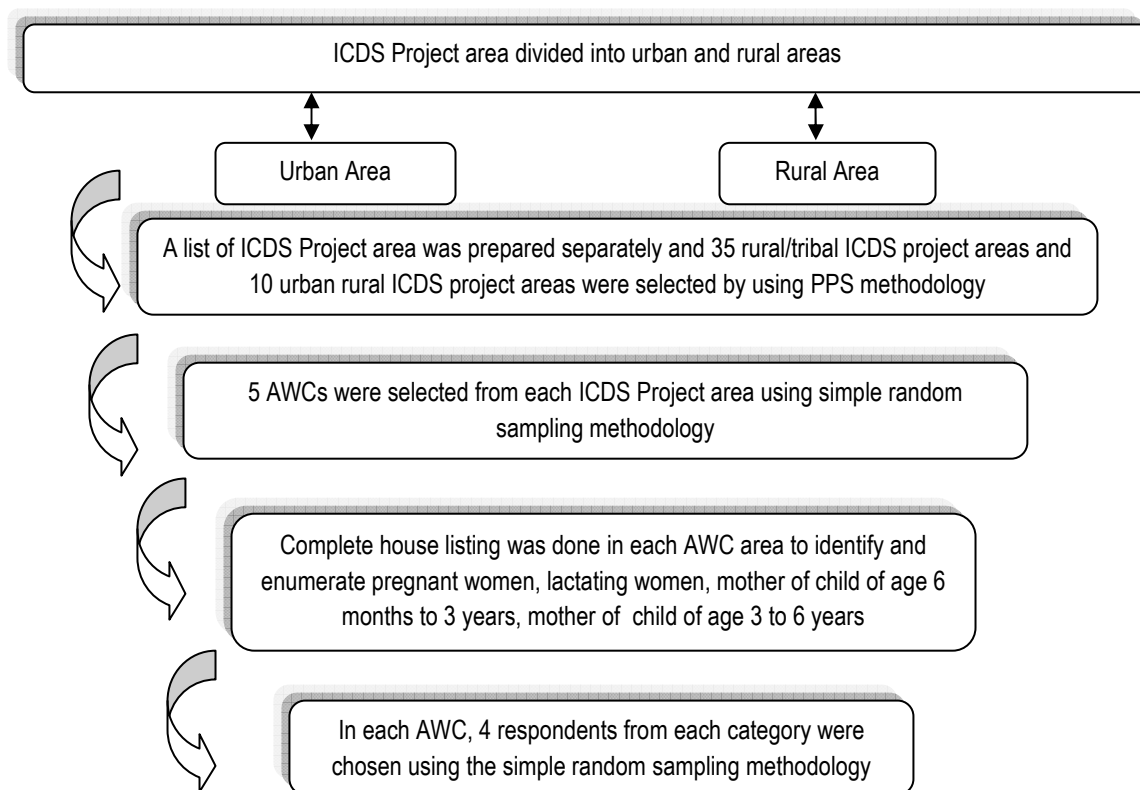
The final respondent number of 1125 per category was inflated by 10%. The inflation was deemed necessary so as to ensure the availability of at least 1125 completed calls per beneficiary category. Thus the total sample size per category was 1238 which translated into 5-6 interviews per category per AWC.

To ensure representative of the sample, sampling weights were assigned at the level of project area to account for unequal probability of selection and bias between the sample and the reference population. For multi-stage sampling designs, the base weights must reflect the probabilities of selection at each stage and the overall base weight the household is obtained as before, by taking the reciprocal of its overall probability of selection. Thus in proposed sampling design, it is envisaged to account for the following

- Probability of selection at the project level/district level/village level
- Refusal/non response at the village level

**Table 2.2: Sample size and sample size after inflation**

Respondent Category	Proposed Sample size	Proposed Sample size after 10% inflation	Sample covered during the study
Pregnant women	1125	1238	1182
Lactating women	1125	1238	1125
Mother of child (aged more than 6 months to 3 years)	1125	1238	1243
Mother of child (between 3 years and 6 years)	1125	1238	1244
Adolescent girls (aged 11 years and above to not more than 18 yrs)	1125	1238	1248
AWWs	225		192
CDPOs/Supervisor	45		38



**Figure 2: Sampling Process Diagram**

For **qualitative assessment**, besides in-depth discussions with functionaries at state, district and block level, two FGDs were conducted with group of beneficiaries in each project area. Adequate attention was paid to ensure that the participants for FGD hail from different strata of the society.

Table 2.3: Sample Size for the qualitative study

Respondent Category	Sample size
FGD	90
Case study	20
Health/Social mapping	45

### 2.3 Research Instruments

The study followed a mix-design approach which entails best-fit mix of Quantitative and Qualitative components.

- **Quantitative component** of the study included:
  - Household Enumeration through Listing-Mapping
  - Structured Interviews for Household Socio-economic profile
  - Structured Interviews with Eligible Respondents
  - Structured Interviews with Service providers
  - Anemia and Anthropometric Assessments
  
- **Qualitative component** of the study entailed:
  - Interviews with AWW, CDPO and Supervisor
  - In-depth discussions at the state, district and block level
  - Focus Group Discussions with eligible women
  - Case Study for PTG and other vulnerable communities
  - Social mapping
  - Health Ranking
  - Secondary Data collection

The following matrix depicts the research instruments used for each activity as to capture the information against each of the target group.

Table 2.4: Research Instruments

Activity	Research Instrument
Household Enumeration-Listing-Mapping	– Household Enumeration format
Household Socio-economic profile	– Household Questionnaire
Interviews with Pregnant Women	– Semi-structured Questionnaire
Interviews with Lactating Women	– Semi-structured Questionnaire
Interviews with Mothers of children below 3 years (> 6 months to 3 years)	– Semi-structured Questionnaire
Interviews with Mother of children of 3-6 years	– Semi-structured Questionnaire
Interviews with Adolescent Girls	– Semi-structured Questionnaire



Interviews with AWW, CDPO, Supervisor	– Semi-structured Questionnaire
In-depth discussions with grass root functionaries	– In-depth discussion guidelines
Focus Group Discussions with eligible women	– FGD Guideline
Focus Group Discussions with Panchayat Members	– FGD Guideline
Health Mapping with general community	– Mapping Guideline
Case Study for PTG and other vulnerable communities	– Case Study Guideline
Training Centre	– Observation Checklist
Programme level assessment on logistics, norms and guidelines, management of programme etc	– Secondary Data collection checklist – Observation checklist for Anganwadi centres

## 2.4 Anthropometrics Approach to Study Nutrition

As the study also intended to analyze the nutritional status of the eligible respondent and the child, anthropometric indicator i.e. Weight for Age and Body Mass Index were used to draw nutritional assessments using ANTHRO software.

### 2.4.1 Weight-for-Age (W/A)

W/A reflects body mass relative to age. W/A is in effect, a composite measure of height-for-age and weight-for-height, making interpretation difficult. Low W/A relative to a child of the same sex and age in the reference population is referred to as “lightness”, while the term “underweight” is commonly used to refer to severe or pathological deficits in W/A. W/A is commonly used for monitoring growth and to assess changes in the magnitude of malnutrition over time. However, W/A confounds the effects of short- and long-term health and nutrition problems.

Anthropometrics indices were constructed by comparing relevant measures with those of comparable individuals in terms of age and sex in the reference to data.

**Table 2.5: Classification of Malnutrition**

Cut-off Malnutrition classification by WHO	
< -1 to > -2 Z-score	Mild
< -2 to > -3 Z-score	Moderate
< -3 Z-score	Severe

### 2.4.2 Body Mass Index (BMI)

The BMI is a statistical measurement which compares a person's weight and height. Due to its ease of measurement and calculation, it is the most widely used diagnostic tool to identify weight problem within a population including: underweight, overweight and obesity. Body mass index is calculated as the individual's *body weight divided by the square of height (W/H<sup>2</sup>)*. BMI can also be determined using BMI chart, which displays BMI as a function of weight



(horizontal axis) and height (vertical axis) using contour lines for different values of BMI or colours for different BMI categories.

The ranges of BMI value are statistical categories which depict weight of an adult and do not predict health.

**Table 2.6: Statistical Categories for BMI**

Category	BMI range – kg/m <sup>2</sup>	BMI Prime	Mass (weight) of a 1.8 metres (5 ft 11 in) person with this BMI
<b>Severely underweight</b>	less than 16.5	less than 0.66	Under 53.5 kilograms (8.42 st; 118 lb)
<b>Underweight</b>	from 16.5 to 18.5	from 0.66 to 0.74	Between 53.5 and 60 kilograms (8.42 and 9.45 st; 118 and 132 lb)
<b>Normal</b>	from 18.5 to 25	from 0.74 to 1.0	Between 60 and 81 kilograms (9.4 and 13 st; 130 and 180 lb)
<b>Overweight</b>	from 25 to 30	from 1.0 to 1.2	Between 81 and 97 kilograms (12.8 and 15.3 st; 180 and 210 lb)
<b>Obese Class I</b>	from 30 to 35	from 1.2 to 1.4	Between 97 and 113 kilograms (15.3 and 17.8 st; 210 and 250 lb)
<b>Obese Class II</b>	from 35 to 40	from 1.4 to 1.6	Between 113 and 130 kilograms (17.8 and 20.5 st; 250 and 290 lb)
<b>Obese Class III</b>	over 40	over 1.6	Over 130 kilograms (20 st; 290 lb)

**Instruments used for anthropometric measurements:**

- ✓ Pedestal weighing machine (for adult weight)
- ✓ Hanging scale (for infant weight)
- ✓ Anthropometric rod / Heightometer (for infant weight)
- ✓ Infantometer (for infant height)

**2.4.3. Anemia Testing**

Content of haemoglobin (Hb) in blood provides a reliable indication of the presence and severity of anemia. To study the status of anemia among women and adolescent girl respondents the study employed one of the most prevalent and widely used estimation procedures, which is Hb determination. The Hb determination carried out using portable photometer HemoCue-B haemoglobin (HBH).

**Equipment Required**

- ✓ HemoCue Hb 201+ Hemoglobin Photometer
- ✓ HemoCue Hemoglobin microcuvettes
- ✓

**Protocol followed for Anaemia Testing**

- ✓ Assembled required supplies at the patient's location.
- ✓ Removed the appropriate number of cuvettes from the vial.
- ✓ Placed the cap back on vial promptly.



- ✓ Obtained the blood sample by pricking finger.
- ✓ Inserted the cuvette tip into the middle of the drop of blood and allowed the cuvette to fill in a continuous process. The cuvette was never topped up after the first filling.
- ✓ Wiped off the excess blood on the outside of the cuvette tip.
- ✓ Made sure that no blood is drawn out of the cuvette due to capillary action that could have been caused by wiping technique.
- ✓ Checked the presence of air bubbles in the center of the cuvette. If present, fresh sample was drawn.
- ✓ Placed the filled cuvette in the holder and pushed in to the stop point.
- ✓ After approximately 45 seconds, the hemoglobin value displayed on the screen.
- ✓ Removed and discarded the cuvette in the appropriate container.
- ✓ Recorded the result on chart.

The following table shows the anaemia test and anthropometric measurements options exercised for individual respondent categories.

**Table 2.7: Category wise anthropometric test**

Respondent Category	Anthropometric test
Pregnant women	Anemia, BMI
Lactating women	Anemia, BMI
Adolescent girls (aged 11 years and above to not more than 18 yrs)	Anemia, BMI
Mother of child (aged more than 6 months to 3 years)	Weight for Age
Mother of child (between 3 years and 6 years)	Weight for Age

## 2.5 Field Survey

### 2.5.1 Sampling of Project Areas

Based on the agreed sampling protocol and in mutual consultation with PMPSU, a sample of 45 project areas were selected using PPS sampling methods. The list of selected project area is given below.

**Table 2.8: List of sampled project areas**

Sl. No	District	Selected Project Area	Sl. No	District	Selected Project Area
1	Hoshangabad	Seoni Malva	15	Dhar	Kuksi
2	Betul	Bhimpur			Dahi
		Chicholi	16	Alirajpur	Jobat
		Ghoradongri	17	Jhabua	Ranapur
		Betul	18	Khandwa	Baldi
3	Chindhara	Pandurna	19	Sehore	Nasrullaganj
		Jamai			Sehore
4	Balaghat	Lalburra			Astha
		Balaghat	20	Shajapur	Shujalpur
5	Mandla	Mohgaon-T			Barod



6	Jabalpur	Kundam	21	Ujjain	Tarana
		Majhauri	22	Rajgarh	Biaora
		Jabalpur-1	23	Guna	Radhogarh
7	Anooppur	Jathari			Bamori
		Anooppur	24	Sheopur	Sheopurkalan
8	Raisen	Sanchi	25	Morena	Ambha
9	Chhattapur	Londi			Morena
10	Panna	Ajaygarh	26	Bhind	Bhind-U
11	Satna	Satna Suhan	27	Bhopal	Motia Park
12	Rewa	Gangev			J.P Nagar
		Rewa U			Berasia
13	Sidhi	Sihawal			Banganga
14	Singraulli	Deosar			

## 2.5.2 Household Listing-Mapping

As stated earlier in order to ascertain the universe of different categories of beneficiaries in an AWC area, a household enumeration exercise was carried out in all the selected villages. House listing sheet was finalized in consultation with the client to list relevant information about the household members. It listed all mothers with children up to 6 months of age, mothers with children of 6-36 completed months, mothers with children of 36-72 completed months, pregnant mothers and adolescent girls of each household in a village. From the list, required sample was selected using proportionate random sampling.

### 2.5.2.1 Briefing of Field Teams for Household Listing-Mapping Exercise

Prior to house-listing exercise, two days briefing (22-23rd June) was organized at Bhopal to develop a common understanding among the field enumerators (33 in numbers) on the basics of household listing exercise and methods to collect information for the desired indicators. First day of briefing focused on basics of household listing and mapping and the format/manual for house-listing was discussed through lectures and mock exercise. The second day of training was occupied with the field practice session to enable enumerators to get acquainted with the field scenarios and identify their problems and concerns while conducting house-listing.

After appropriate training of field enumerators the actual house-listing exercise commenced on 24<sup>th</sup> June 2009 in the selected study sites/ project areas and finished by 6<sup>th</sup> of August. Each house listing and mapping team consisted of one Lister and one Mapper.

### 2.5.2.2 Piloting of Instruments

Next to house-hold listing – Mapping exercise, pre-testing of study tool (interview schedule) was an important activity before finalizing the instruments. Pre-testing of tools was carried out on 24<sup>th</sup> and 25<sup>th</sup> June 2009. The pilot survey team consisted of professional researchers accompanied by female investigators and supervisors. The survey was conducted at two sites, one at Durga Nagar (urban) in Bhopal city; and other at Bagri village in Vidisha district. On day one, the field investigators were oriented on the interview schedules. In the latter half the team visited urban site to administer the tools. Day two was a complete field exercise and the team visited rural site. The respondents were sampled out from the list that was prepared a day before during the mapping and listing exercise.





### 2.5.3 Training of Field Investigators for Data Collection

Training of survey team comprised of investigators and supervisors was scheduled for five days on survey objective, survey tools, sampling design and expected data quality. The training entailed briefing on data collection and quality assurance. Five days training (19<sup>th</sup> -23<sup>rd</sup> July 2009) held at Hotel Landmark, Bhopal in which a total 41 participants; 33 female investigators and 8 supervisors were present.

First three days of training focused on beneficiary schedule and was explained to the investigators through lectures, mock and demonstration interviews. During training along other team members of Sambodhi from its regional office - Bhopal, project team leader, health expert, nutrition expert, and statistical expert for the study were also present.

The first day of the training was entirely dedicated in developing the conceptual understanding of the study and the quality assurance benchmarks. In the next two days emphasis was on explaining survey tools to the team through a hand on approach. That included lectures, role plays, mock calls, demonstration interviews etc. Field practice session was scheduled on the fourth day of training, which was done among selected non-sampled sites at the district level. Further a debriefing session was conducted by the professionals on same day after returning from field and on the fifth day to ensure appeasing all the doubts concerned to data collection.

Shri Chitranjan Tyagi, Team Leader - PMPSU, Shri Yogesh Mohar (PMPSU) and Shri Raguvanshi Ji, Joint Director - ICDS also joined the training programme on the fifth day and provided their insight on the subject. Director of ICDS Shri Gulshan Bamra also attended the programme and discussed the issues related to the study.

### 2.5.4 Main Field Survey

The main field survey commenced immediately after the training of survey teams. Five core groups were formed, each comprised of 5 females investigators, one male/female for FGDs and a supervisor. One team leader was assigned for two groups. Group A and B were constituted as team one, group C and D formed team two and Group E constituted third team. For actual data collection first a household questionnaire was canvassed at the household level in the sampled households. The respondent were the head of household, as they could answer the questions relating to the points of enquiry at the household level as a whole like demographic profile, caste, occupation of members, possession of assets etc. At the second stage, depending on the category of respondent, the specific questionnaire was administered. If more than one category of respondents were interviewed in the selected household, the household questionnaire was asked only once. The survey was first administered in the district Betul, where all the five teams were present. The idea behind administering the tools together in a district was to resolve problems/confusion among the investigators if any, and to develop a clear understanding among all the members before dispersing to respective field. After the completion of survey in district Betul, all the teams where moved to their respective direction. Group A and B covered the South West districts of MP where as Group C and D covered East and North MP. The Group E covered the Western and Central part of Madhya Pradesh. Name of the districts covered by different team is mentioned here in the following table:



**Table 2.9: Teams for the survey and covered districts**

Teams	District Covered
Group A and B	Betul, Hoshangabad, Khandwa, Dhar, Alirajpur, Jhabua, Bhopal
Group C and D	Betul, Chindwara, Balaghat, Mandla, Jabalpur, Anuppur, Singrouli, Sidhi, Rewa, Satna, Panna, Chattarpur, Bhind, Morena, Sheopur
Group E	Betul, Sehore, Ujjain, Rajgarh, Guna, Sajapur, Raisen, Bhopal

**2.5.4.1 Quantitative Survey**

The actual field survey started on 26th July 2009 from the district Betul and finished on 24th September 2009. During the field study, in case of pregnant and lactating women, field team faced problem in achieving the desired sample size because of unavailability of women beneficiary at home. The problem was primarily because of the reason that a woman specifically in case of pregnant and lactating category has the tendency to go to maternal home for the delivery. This issue was discussed with PMSU and it was decided to oversample the beneficiaries i.e. around 8 in case of pregnant and lactating women and around 6 in rest of the categories i.e. mother of 6-36 month children and mother of 36-72 month children and adolescent girl. After the completion of the main field survey on 17th September 2009, the team revisited the field to cover the remaining sample size for the lactating and pregnant women.

**Table 2.10: Quantitative survey sample**

				Total Number of Sample/target Beneficiary and the Number of Beneficiary covered				
	District	Project	Anganwadi	Pregnant Mother	Lactating Mother	Mother of 6 to 35 month age of child	Mother of 36 to 72 months of child	Adolescent Girls
	No.	No.	No.	No.	No.	No.	No.	No.
<b>Sampled/ Target</b>	27	35	225	1125	1125	1125	1125	1125
<b>Covered</b>	27	35	225	1182	1125	1243	1244	1248

**2.5.4.2 Focus Group Discussion, In-depth Discussion and Case Studies**

During the course of field work both the quantitative and qualitative surveys were carried out simultaneously. In field as designed 90 focus group discussion, 45 social mapping and interviews with the grass root functionaries such as teacher, ANM, ASHA Dai/TBA and others (ward members) etc in appropriate number were conducted.

**Table 2.11: Qualitative study sample**

Total Number of Sampled and Covered Focus Group Discussion, Social Mapping and Grass –root Functionaries													
	FGD-Beneficiary			FGD-Panchayat		Social Mapping			Grass-root Functionaries				
	Urban	Rural	Tribal	Rural	Tribal	Urban	Rural	Tribal	Teacher	ANM	ASHA	Dai/TBA	Other
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Sample/Target</b>	70			20		45			NA				
<b>Covered</b>	15	34	21	14	6	10	22	13	29	10	8	8	10



The team leader/supervisor of the survey team also had an interaction with the CDPOs. Following table depicts the total number of CDPO and supervisors covered during the study. The sample size for the CDPO was fixed to 45 however during the field visit some of the CDPOs were found on leave and somewhere not available in the office because of meetings and various other reasons. The study managed to had an in-depth discussion with 38 CDPOs.

A total 20 cases were identified and studied by the field investigators which they thought were important for learning and which demands for special interventions by the project for certain groups.

**Table 2.12: No. of project functionaries covered**

Total Number of Sampled Covered			
	CDPO	CDPO-Checklist	Supervisor
<b>Number Covered</b>	38	37	140

#### 2.5.4.3 Visit to Training centers

To train the Angawadi worker, a total 27 training centres are being run by the department in different districts. During field visit, the investigators visited all the training centers where the AWWs from the sampled AWCs receive trainings. During the visit investigator interviewed the Principal/Director of the training centres and filled the observation checklist.

#### 2.5.4.4 Visit to NGO and Janpad Panchayat

Some of the projects have been assigned to NGOs and Janpad Panchayat. A team of investigators visited the office of these organizations and had in-depth discussion with the project in-charge on the performance of the project and issues related to running Anganwadi centers.

#### 2.5.4.5 Discussion with the Primitive Tribal Group Members

There are few tribal groups which live in isolation and bare minimum condition. These communities have abnormally low growth rate and are at the verge of extinction. The ministry of home affairs identifies them as Primitive Tribal Groups (PTGs) on the basis of their pre-agricultural level of technology and extremely low level of literacy. In Madhya Pradesh there are three tribes which are segregated as PTGs. Sahariya Tribe inhabit mainly in Sheopur and Shivpuri districts, Baiga Tribe in Mandla, Dindori and nearby districts and the Bharias in Chindwada, Dindori and nearby districts. In order to understand the socio-economic scenario of the village and performance (services) by Anganwadi, in-depth discussions were conducted with the community members in the PTG dominated villages.

### 2.6 Quality Assurance

Controlling the quality of the data collection is the most important function of the research professionals /field executive/ supervisors. Throughout the fieldwork, they were responsible for observing interviews and carrying out field editing. By checking the interviewers' work regularly they ensured that the quality of the data collection remains. A team of scrutinizers was appointed who thoroughly checked the questionnaires at Bhopal office before forwarding for data entry.



## 2.7 Visit of Experts in the Field

During the study there have been extensive visit by experts in the project areas. The experts visited the different Anganwadi centers, had talk with Anganwadi workers, visited home of the beneficiaries, and had focus group discussion with the group of beneficiaries. The expert also visited the offices of the concerned authority and had detailed discussion on the performance of the project and issues related to the service delivery.

## 2.8 Literature Review

A comprehensive literature review was carried out which entailed collection of background information with respect to ICDS, various schemes and provisions under ICDS, standard government norms, locally recognized terms etc. Following details/documents were referred as a part of desk review process.

- Administrative Annual Report for the year 2008-09
- Various schemes and their provisions
- Programme/scheme wise fund allocation and outlay for previous years
- Programme/scheme wise fund allocation for current financial year (2009-2010)
- Documents pertaining to the institutional mechanism of ICDS service delivery (Organogram)
- Details of the staff in the ICDS, position sanctioned and vacant
- Details of the salary/honorarium for the Anganwadi workers/helpers and other benefits
- Status of trainings of the AWWs, CDPO/Supervisors for the last three years
- Other relevant reports, documents, articles, guideline etc.

## Chapter III

### Profile of Household

#### 3.1 Demographic Profile

The present section details the age-wise distribution and gender break-up of family members living within a household respectively. According to the table, more than half of the total respondents (55 percent) were found between the age group of 20 and 30 years, while touch more than one-fifth (22 percent) of the total respondents was reported between 30 and 40 years of age. A similar percentage distribution pattern was observed across all three block types (urban, rural and tribal). Three-fourth of the total respondents were females. Not much of gender-wise differential was found across the three block types. The percentage range of women was found to be between 70 and 77 percent across the three location types.

**Table 3.1: Age of the Respondents (Weighted Percentage)**

Age Group (in years)	Type of Project Block			Total
	Urban	Rural	Tribal	
< 20	4.6	9.8	11.0	8.9
20 - 30	46.8	58.1	56.3	54.9
30 - 40	28.7	19.5	20.4	22.0
40 - 50	12.6	8.3	7.9	9.3
50+	7.3	4.3	4.4	5.1
Unweighted N	1527	3008	1507	6042

**Table 3.2: Gender distribution of the Respondents (Weighted Percentage)**

Gender	Type of Project Block			Total
	Urban	Rural	Tribal	
Male	22.6	25.8	29.2	25.9
Female	77.4	74.2	70.8	74.1
Unweighted N	1527	3008	1507	6042

#### 3.2 Educational Profile

**Table 3.3: Educational Status of the respondents (Weighted Percentage)**

	Type of Project Block			Total
	Urban	Rural	Tribal	
Literacy (Ability to read & write)	75.6	50.4	41.9	54.4
Total N	1527	3008	1507	6042
Ever been to school	96.9	98.1	96.0	97.3
Unweighted N	1204	1467	606	3277

In this section, educational profiling of the household members has been done. In this regard, characteristics like literacy, attending school and highest level of education received has been captured. Table 3.3 depicts the respondents' ability to read and write. According to the table, not a huge difference was observed cumulatively between the percentage of literates (54 percent) and non-literates (46 percent). In rural blocks, the difference was close to

negligible with both literates and non-literates being (almost) equal in number. In tribal location, the percentage of illiterates (58 percent) was higher than literates, while in urban locations three-fourth of the respondents accounted as literates and remaining one-fourth as illiterates. Table 3.3 also shows the percentage of respondents who ever



attended school. Of those who were literate, more than 97 percent were found to have ever attended the school. The percentage range of respondents reported to have ever attended the school was between 96 and 98 percent.

Table 3.4 shows the highest grade till which the respondents from a household attained formal education. According to the table, among those who ever attended school, around one-third of the total respondents completed the education up to middle school i.e. 8<sup>th</sup> standard while 28 percent completed education till primary level (5<sup>th</sup> standard). More than one-fourth of the total respondents were educated up to 10<sup>th</sup> standard (high school) or above. More than two-fifth (around 44 percent) of the urban respondents were educated up to 10<sup>th</sup> standard and above. Majority of the rural and tribal respondents were found to be educated between primary and middle level (68 and 63 percent respectively).

**Table 3.4: Level of educational attainment (Weighted Percentage)**

Education Level	Type of Project Block			Total
	Urban	Rural	Tribal	
<Primary school	7.5	13.6	15.3	11.9
Primary school complete	18.6	33.2	31.4	27.9
Middle school complete	30.0	35.3	31.8	32.8
High school complete	19.7	9.7	11.3	13.4
Higher secondary (+2) complete	13.3	4.3	5.9	7.6
Graduate and above	10.9	4.0	4.2	6.4
Unweighted N	1178	1437	579	3194

### 3.3 Social Profile

**Table 3.5: Religion of the households (Weighted Percentage)**

Religion	Type of Project Block			Total
	Urban	Rural	Tribal	
Hindu	78.3	87.4	43.1	73.7
Muslim	16.3	3.8	0.0	6.0
Christian	0.0	0.1	0.1	0.1
Sikh	0.3	0.0	0.1	0.1
Buddhist/neo-Buddhist	1.0	0.4	0.2	0.5
Jain	1.2	0.2	0.1	0.5
Tribal	2.8	8.0	52.9	18.3
Others	0.1	0.0	3.5	3.5
Unweighted N	1527	3008	1507	6042

In this section, the religious and caste background of sampled households has been figured out. According to table 3.5, close to three-fourth of the total respondents follow Hinduism. In the urban blocks more than 16 percent of the total respondents were found to be Muslims. It was seen that a considerable percentage (43 percent) of the total respondents in tribal blocks follow Hinduism.



**Table 3.6: Social Class of the Household (Weighted Percentage)**

Social Strata	Type of Project Block			Total
	Urban	Rural	Tribal	
Scheduled tribe	7.6	18.0	67.1	28.2
Scheduled caste	17.5	19.4	5.9	15.4
Other backward caste	43.9	42.4	21.6	37.4
Other caste	30.8	20.0	5.3	18.8
None of them	0.2	0.1	0.0	0.1
Unweighted N	1527	3008	1507	6042

Cumulatively majority of the respondents were reported to be OBC i.e. other backward class (37 percent), followed by scheduled tribes (28 percent), other/general caste (marginally less than 20 percent) and scheduled caste (15 percent). Both urban and rural blocks had maximum population of the OBCs in the sample (44 and 42 percent respectively). Tribal blocks had representation of more than two-third scheduled tribes (67 percent), while urban and rural blocks had 8 and 18 percent of

tribal population samples respectively.

### 3.4 Economic Profile

Under economic profiling of sampled households, characteristics including type of houses; average monthly income; migration; benefit of NREGA; non-institutional borrowing from friends/relatives; and hunger period have been studied.

**Table 3.7: Type of houses (Weighted Percentage)**

Type of House	Type of Project Block			Total
	Urban	Rural	Tribal	
Kuchcha	18.8	52.8	61.6	46.8
Semi-Pucca	30.8	33.9	30.1	32.2
Pucca	50.4	13.3	8.3	21.1
Unweighted N	1527	3008	1507	6042

According to table 3.7, close to half of the total houses in the sample were found to be Kuchcha (47 percent). Remaining one-third houses (32 percent) were semi-Pucca and one-fifth (21 percent) were Pucca. Touch more than half of the total urban houses were Pucca while in rural and tribal locations less than 15 and 10 percent houses were Pucca respectively. In tribal blocks, more than three-fifth houses were Kuchcha while in rural they accounted for more than half (53

percent) of the total houses.

Table 3.8 shows that more than three-fifth (61 percent) of the total sampled households earning is between thousand and three thousand rupees per month. Around 17 percent reported of earning below thousand rupees per month. 9 percent of the total households were found to be earning five thousand or more per month. Tribal households were

**Table 3.8: Average monthly income (Weighted Percentage)**

Monthly Income	Type of Project Block			Total
	Urban	Rural	Tribal	
Up to 1000	7.8	13.1	32.1	16.7
1001 - 3000	50.8	68.6	57.0	61.3
3001 - 5000	21.1	13.3	5.0	13.0
5001 - 10000	13.7	4.2	4.1	6.5
More than 10000	6.6	0.8	1.8	2.5
Unweighted N	1527	3008	1507	6042

found to be earning substantially low than their rural and urban counterpart. Around one-third of the total tribal households (32 percent) reported to be earning below one thousand a month, while more than half (57 percent) of total tribal households were earning between one and three thousand. More than two-third (69 percent) of the total rural households also reported to be earning between one and





three thousand per month. Urban households were relatively more sound as more than one-fifth of them (20 percent) earned in excess of five thousand per month.

**Table: 3.9: Option for earnings, Food security, and indebtedness (Weighted Percentage)**

	Type of Project Block			Total
	Urban	Rural	Tribal	
Migration	4.9	9.1	12.5	9.0
Benefit of NREGA	4.6	30.2	43.9	27.5
Members skipped/missed meal	2.6	6.7	14.4	7.7
Borrowing money or food	16.4	29.4	48.2	31.1
Unweighted N	1527	3008	1507	6042
Frequency of borrowing (in last 12 months)				
1 time	7.9	6.8	3.6	5.6
2 times	29.2	26.5	20.2	24.3
3 times	28.7	22.7	27.4	25.3
4 times	15.4	18.3	16.6	17.3
5+ times	18.8	25.8	32.2	27.4
Unweighted N	257	949	711	1917

In this sub-section, migration and NREGA has been studied in order to capture the earning options available to respondents. Rural unemployment (seasonal or disguised) has been an issue of concern for centre and states since independence and before. In pursuit of alleviating unemployment and hence poverty, NREGA was kick-started by the government.

From table 3.9, it is apparent that apart from tribal households, all respondents

reported less than ten percent of such households from which any member had migrated. Amongst tribal households 12.5 percent families had any of its members working outside for the last six months or so.

The outcomes of NREGA are not going to be visible within short span of time. It has to come out of the mould of mere patch-work to effectively remove the vices of poverty and unemployment. The study tried to capture the number of respondent households who are seeking its benefit. According to table 3.9 cumulatively, more than one-fourth of the total households (27.5 percent) had family members that worked under the NREGA. On desegregating the data, it was found that the tribal households had maximum recipients of the NREGA benefit. 44 percent of households in tribal blocks followed by 30 percent of households in rural blocks and 5 percent of urban households were reported to be working under the NREGA. The low percentage of households in urban blocks was understandable as the scheme is for rural people.

In the following sub-section, the borrowing pattern and hunger period of household and their members have been studied. Table 3.9 also depicts the instances of borrowing and frequency of borrowing. Cumulatively, close to one-third (31 percent) of the total households reported to have borrowed money or food from friends or relatives. Of them, more than a quarter (27 percent) borrowed for five times or more, half of them borrowed between two-three times and 17 percent borrowed for four times. On desegregating the data, tribal households (48 percent) were found to be relatively borrowing more than rural (29 percent) and urban (16 percent) households. Amongst tribal blocks, close to one-third of the total households (32 percent) borrowed for five times or more while remaining two-third (64 percent) borrowed between two to four times in the last twelve months. This reflects the fact that tribal don't have a consistent source of income and gap between income and expense is relatively wider than rural and urban households. Amongst households in rural blocks, around a quarter each of the total rural households borrowed money/food for



either twice, thrice, five times or more. Amongst the urban households, more than half of the surveyed households borrowed between two-three times.

Table 3.9 also shows the percentage of households in which members had to miss or skip food due to non-availability in the last 12 months. Tribal households reported of more than 14 percent instances where any family member has reduced or skipped meal. Rural and urban locations reported 7 and 3 percent respectively about such households. In all cases, percentage of adult female members was higher than others who reduced or skipped meal in times of food shortage. As stated earlier, it was quite evident and expected of tribal household members to be skipping meal because they earn less and are more dependent on external borrowing which is largely non-institutional and exploitative.

### 3.5 Household Facilities

According to table 3.10, more than half of the total respondent households i.e. 50 percent had the water supply through an out-house hand-pump. Close to thirty percent households were having supply from tap (both within and outside the residing campus). Around two-third of the urban households (66 percent) had water supply through tap (inside and outside). Close to three-fifth of the rural and more than half of the tribal households used hand-pump (placed outside the campus) for drinking water.

Source of Water	Type of Project Block			Total
	Urban	Rural	Tribal	
<b>Tap - Inside residence/yard/plot</b>	34.4	5.2	3.5	11.9
<b>Tap- Outside residence/yard/plot</b>	31.8	12.1	11.7	16.8
<b>Hand pump- Inside residence/yard/plot</b>	4.9	3.4	0.9	3.1
<b>Hand pump- Outside residence/yard/plot</b>	24.6	60.4	54.1	50.1
<b>Well- Inside residence/yard/plot</b>	0.9	2.6	2.8	2.3
<b>Well- Outside residence/yard/plot</b>	2.3	15.8	20.7	13.8
Spring	0.0	0.0	1.5	0.4
River	0.6	0.4	4.7	1.5
Tanker	0.5	0.0	0.0	0.1
Other	0.0	0.0	0.1	0.0
Unweighted N	1527	3008	1507	6042

Table 3.11 shows that more than two-third of the total households (67 percent) had no toilet facility in their household. Both rural and tribal households had in majority no toilet facility (close to 80 percent or more). Three-fourth of the urban houses had in-house flush or pit toilet facility. The table signifies the fact that majority of rural and tribal households are either not aware about the vices of open-air defecation or are not economically well-off to afford a separate toilet.



**Table 3.11: Toilet facility (Weighted Percentage)**

Type of Toilet	Type of Project Block			Total
	Urban	Rural	Tribal	
Own flush toilet	41.7	7.4	3.0	14.6
Own pit toilet	33.7	11.7	6.5	15.7
Shared/public toilet of any type	4.1	1.0	3.5	2.4
No facility/bush/field	20.4	79.9	87.0	67.3
Unweighted N	1527	3008	1507	6042

According to table 3.12, in more than 80 percent cases, wood is used as cooking fuel while close to 20 percent households used LPG. Other types of fuel also used by respondents were electricity, bio-gas, kerosene, coal, charcoal, dung cakes, etc. More than 94 percent rural and tribal households used wood. In more than 58 percent cases of urban households LPG was found to be used. Four-fifth of the total sampled households reportedly used iodized salt. 95 percent urban and around three-fourth rural and tribal households were using iodized salt.

**Table 3.12: Cooking Fuel Used by the HHs (Weighted Percentage)**

Type of Fuel	Type of Project Block			Total
	Urban	Rural	Tribal	
Electricity	5.9	1.2	0.9	2.3
LPG/natural gas	58.3	7.7	5.4	19.4
Biogas	1.4	0.4	0.0	0.6
Kerosene	11.7	1.1	0.8	3.6
Coal/lignite	1.5	0.6	3.6	1.6
Charcoal	0.4	1.2	2.3	1.3
Wood	41.0	94.4	94.6	81.4
Straw/shrubs/Grass	1.0	2.7	8.0	3.7
Agricultural crop	0.0	1.4	0.7	0.9
Dung cakes	1.3	12.2	6.6	8.1
Other	0.0	0.0	0.1	0.0
Unweighted N	1527	3008	1507	6042

### 3.6 Asset Profile

In this section, respondents' possession of land, animals and necessary home items has been studied. Besides, ownership of BPL card as well as purchase of items at subsidized rate from PDS has also been covered in this section. Around 70 percent tribal and 60 percent rural households had land-holding. Total 12 percent urban respondents reported to have land-holding. Of the tribal land-holding households, three-fifth were having it between one and three acres, one-fifth between three to five acres and 14 percent had holding of five or more acres. Half of the rural land holders had land between one and three acres while 44 percent had three or more acres of land.



**Table 3.13: Animal holding (Weighted Percentage)**

	Type of Project Block			Total
	Urban	Rural	Tribal	
Cows/buffaloes	8.2	59.9	55.0	46.0
Goats/sheep	3.8	14.4	30.2	15.9
Horses/donkeys/mules	0.5	0.2	0.2	0.3
Ox/bullock	1.9	33.4	52.6	30.7
Camels	0.1	0.1	0.2	0.2
Pig	0.1	0.1	0.0	0.1
Chicken/ducks	1.5	3.1	22.3	7.7
Unweighted N	1527	3008	1507	6042

Table 3.13 shows percentage of households having animals. Comparatively speaking, tribal households had maximum percentage of animal ownership. Barring cattle, they reported to have more percentage of other animals in their possession than rural and urban households.

Out of the total respondents, 46 percent possessed cattle. Amongst urban

household less than ten percent owned cattle. While more than half of tribal and rural households owned them. Only 16 percent of the total households possessed goats/sheep. Tribal households had their maximum ownership both in terms of number (436) and relative percentage (30 percent). Touch more than 30 percent of the total households owned ox/bullock. More than half of the tribal and around one-third rural households had ox/bullock in their houses.

Table 3.14 shows that 97 percent urban, 83 percent rural and 77 percent tribal houses had electricity connection. More than two-third urban households had mobile phone at home. Amongst rural households, touch more than two-fifth of the total sample (41 percent) had mobile phone in their household while marginally more than one-fifth tribal houses owned a mobile set. Less than 10 percent rural and tribal households had a fridge at home while in 30 percent cases, an urban household possessed a fridge. 31 percent of the total households owned a coloured television. Amongst them, 66 percent were urban, 23 percent rural and 13 percent tribal households.

**Table 3.14: Household items (Weighted Percentage)**

	Type of Project Block			Total
	Urban	Rural	Tribal	
Electricity	96.9	82.6	77.4	84.8
Mattress	81.3	39.9	29.4	47.3
Pressure cooker	78.6	27.1	15.2	36.5
Chair	81.2	44.8	33.1	50.7
Cot/bed	77.1	92.3	89.5	87.9
Table	52.7	20.0	16.1	27.0
Electric fan	88.1	61.0	29.2	59.4
Radio/transistor	22.0	12.2	14.0	15.1
B&W television	17.1	15.3	7.1	13.6
Colour television	65.9	23.4	12.7	31.0
Sewing machine	35.8	12.3	7.6	16.8
Mobile telephone	67.2	41.2	22.4	42.7
Other telephone	10.4	5.9	1.9	6.0
Computer	5.1	0.6	0.3	1.6
Refrigerator	30.5	5.8	4.0	11.4
Watch/clock	89.4	74.4	68.9	76.6
Bicycle	66.4	53.9	45.2	54.7
Motorcycle/scooter	37.4	19.8	11.6	21.9
Animal-drawn cart	1.5	14.9	16.1	11.9
Car	2.3	0.3	0.7	0.9
Jeep	0.5	0.6	0.2	0.5
Water Pump	2.9	9.2	4.6	6.5
Thresher	0.5	4.2	0.3	2.3
Tractor	0.9	4.5	1.0	2.7
Mosquito net	25.3	17.6	20.6	20.3
Unweighted N	1527	3008	1507	6042



22 percent of the total households had a scooter /motorcycle while 55 percent reported to have a bicycle at home.

**Table 3.15: BPL Card Holder and HHs receiving ration from PDS (Weighted Percentage)**

	Type of Project Block			Total
	Urban	Rural	Tribal	
BPL card/number	39.9	42.0	50.3	43.6
Ration from PDS	44.4	48.6	60.5	50.6
Unweighted N	1527	3008	1507	6042

Table 3.15 shows that 44 percent of the total sampled households possess BPL card or number. 50 percent of the households in tribal blocks were reported to have BPL card or number followed by households in rural blocks (42 percent) and urban blocks (40 percent). Table also showed that

around half of the total surveyed sample households purchase ration from public distribution system. Households in tribal blocks were purchasing relatively more (60 percent) from ration shops/depots than other locations. 49 percent rural and 44 percent urban households were recorded to purchase from PDS.

### 3.7 Standard of Living Index

**Table 3.16: Percent distribution of households by standard of living index (Weighted Percentage)**

	Type of Project Block			Total
	Urban	Rural	Tribal	
Low	19.3	72.2	85.7	62.2
Medium	41.2	22.4	10.4	24.1
High	39.5	5.5	3.9	34.7
Unweighted N	1527	3008	1507	6042

The standard of living index has been developed taking into account 29 proxy indicators. Each household asset is assigned a weight generated through principal component analysis, and the resulting asset scores are standardized in relation to a normal

distribution with a mean of zero and standard deviation of one (Gwatkin et al., 2000<sup>4</sup>). Each household is then assigned a score for each asset, and the scores were summed for each household; individuals are ranked according to the score of the household in which they reside. The sample is then divided into quintiles i.e. three equal groups. The table 3.16 presents the distribution of households separated into standard of living by type of block. Majority of the surveyed households belonged to low standard of living (62 percent), followed by high standard (35 percent) and medium standard (24 percent). Among the type of blocks, majority of the household which belong to low standard of living fall in tribal blocks (86 percent).

### 3.8 Family Members Profile

In this section, members in a family (adult and children) as well as number of school attending children and children receiving mid-day meal has been studied. In the sample HHs, marginally more than one-fourth of the total households had three or more adult male members in their household, while other one-fourth had two male members. Not much of a differential was observed in the desegregated break-up of the male members across the

<sup>4</sup> Gwatkin, D.R., S. Rutstein, K. Johnson, R.P. Pande, and A. Wagstaff. 2000. Socio-economic differences in health, nutrition and poverty. HNP/Poverty Thematic Group of the World Bank. Washington, D.C.: The World Bank.



three locations. The mean number of male was found to be 1.85, 2.06, 1.79 and 1.94 in the urban, rural, tribal locations and cumulatively. More than one-fifth of the total households were reported to be having three or more adult female members in their respective households/families. Close to thirty percent households reported two females per household. A similar percentage break-up was observed on desegregating the data on the basis of urban, rural and tribal blocks. The mean number of female was found to be 1.89 with 1.83 in urban block, 1.97 in rural block and 1.79 tribal block. More than half of the total households had at one male child in their household followed by thirty percent households having two boys. The mean number of male child was found to be 1.13, 1.27, 1.31 and 1.25 in the urban, rural, tribal locations and cumulatively. More than three-fourth (77 percent) households reported to have at least one female child in their household. Close to ten percent households had four or more female children per family. The mean number of female child was found to be 1.45, 1.47, 1.61 and 1.50 in the urban, rural, tribal locations and cumulatively.

According to the table 3.17, out of the total households, around 68 percent of households had one school going boy while nearly 59 percent of the households had one school going girl. Among these households (i.e. out of 68 percent of households who have one school going boy) 70 percent are receiving mid day meal while in 61 percent of households one girl child (i.e. out of 59 percent of households who have one school going girl) is receiving mid day meal in the school.



Table 3.17: School going children in a household receiving benefit of mid-day meal (Weighted Percentage)

	Number of children attending school	Type of Project Block			
		Urban	Rural	Tribal	Total
Boys	1	70.3	64.8	71.7	68.1
	2	23.3	25.7	22.0	24.1
	3	5.5	6.4	5.3	5.9
	4 or more	0.8	3.2	1.0	2.0
	Unweighted N	644	1377	637	2658
Girls	1	58.9	59.6	57.1	58.8
	2	27.2	26.9	25.9	26.7
	3	10.5	8.8	13.6	10.5
	4 or more	3.1	4.7	3.4	4.0
	Unweighted N	729	1519	743	2991
	<b>Number of children receiving MDM in school</b>				
Boys	1	70.1	69.5	72.4	70.6
	2	25.6	24.0	22.3	23.7
	3	3.8	5.0	4.3	4.6
	4 or more	0.4	1.4	0.9	1.1
	Unweighted N	194	904	500	1598
Girls	1	60.0	62.1	59.6	61.0
	2	28.1	26.3	25.6	26.4
	3	8.5	7.2	12.2	9.0
	4 or more	3.3	4.5	2.6	3.6
	Unweighted N	238	1117	618	1973

Table 3.18 shows that cumulatively in 87 percent of the total households, one boy is receiving benefit from the AWC, followed by 12 percent of the total households where two male children are receiving benefit. Not much of difference was observed across the three types of blocks vis-à-vis break-up of percentage of number of male children taking benefits from AW centre. Similar trend was observed in case of female children as well. 85 percent of the total households had one girl attending AW, followed by 14 percent of the total households having two girls attending AW.





**Table 3.18: Children in household receiving benefits from AWC (Weighted Percentage)**

	Number of children in a household receiving benefit from AWC	Type of Project Block			
		Urban	Rural	Tribal	Total
Boys	1	87.0	86.7	86.8	86.8
	2	12.7	12.0	12.4	12.2
	3	0.2	1.0	0.8	0.8
	4	0.0	0.3	0.0	0.1
	Unweighted N	306	825	419	1550
Girls	1	86.5	86.7	82.1	85.4
	2	13.2	12.3	16.0	13.5
	3	0.4	0.9	1.3	0.9
	4	0.0	0.1	0.7	0.2
	Unweighted N	395	982	473	1850

Almost all households across all location types reported to have an Anganwadi Centre in their respective village. Urban had 97 percent; rural had 98 percent and tribal households had 99 percent respondents who quoted to have a centre in their locality or village. According to the table 3.19, more than two-third of the total rural (68 percent) and tribal (68 percent) households had utilized service(s) of the Anganwadi in the past one year. Marginally more than half of the total urban households were found to utilize their services. Maximum respondents enlisted supplementary nutrition and immunization as the two major services availing from the centre. This finding was more or less identical in all three location types.

**Table 3.19: Utilization of services from Anganwadi (Weighted Percentage)**

	Type of Project Block			
	Urban	Rural	Tribal	Total
Utilization of Anganwadi services during the last one year	51.1	68.0	67.7	63.9
Unweighted N	1485	2964	1505	5954
Visit to Anganwadi in last one month	67.0	58.5	71.0	63.6
Unweighted N	872	1920	970	3762
Received services from Anganwadi in last one month	96.8	94.8	93.4	94.8
Unweighted N	603	1152	676	2431

Table 3.19 also shows that more than 64 percent of the total household respondents said to have visited the centre in the last thirty days. This percentage was highest amongst the tribal locations which reported 71 percent such households followed by 67 percent of the urban households and touch less than three-fifth rural households. According to table, in 95 percent cases the visitor to the centre received the service it had gone for. In urban location, it was 97 percent; followed closely by rural population (95 percent) and tribal location (93 percent).



## Chapter IV

### Profile of Survey Respondents

#### 4.1 Pregnant Women

##### 4.1.1 Age Distribution of Pregnant Women Respondents

Age of the respondents as shown in Table 4.1 ranged from 15 to 44 years. More than half of the total respondents interviewed were between 20 and 24 years and little less than one-third of the total respondents were from the age bracket of 25 - 29 years. Similar percentage distribution across different age groups was observed on desegregating the data into urban, rural and tribal locations.

**Table 4.1: Age Profile of the Respondents - Pregnant Women (Weighted percentage)**

Age Groups (in years)	Type of Block			Total
	Urban	Rural	Tribal	
15-19	4.5	10.6	15.6	10.8
20-24	51.9	53.9	51.1	53.0
25-29	34.6	26.8	27.1	28.0
30-34	8.1	6.8	5.1	6.6
35-39	0.6	1.8	1.1	1.5
40-44	0.4	0.1	0.0	0.1
Unweighted N	333	638	211	1,182

##### 4.1.2 Age at marriage of Pregnant Women Respondents

Table 4.2 shows the age at marriage of the respondents. Majority i.e. more than three fourth (77 percent) of the pregnant women were married before attaining 18 years of age. Trend of marrying before the recommended age for marriage is found to be more prominent in rural and tribal blocks (more than 80 percent). In urban block, little less than fifty percent respondents were married below the age of 18 years.

**Table 4.2: Age at marriage of Respondents - Pregnant Women (Weighted percentage)**

Age Groups (in years)	Type of Block			Total
	Urban	Rural	Tribal	
<18	48.3	81.2	81.5	76.7
18-21	33.7	15.5	16.5	18.3
>21	18.0	3.2	2.0	5.0
Unweighted N	333	638	211	1,182



### 4.1.3 Educational Status of Pregnant Women Respondents

Table 4.3 shows the educational status of the respondents. Of the total pregnant women interviewed near about half (46.1 percent) were illiterate; followed by one-fifth of the total who had completed primary school; 17 percent who had completed middle school and 11 percent who had completed education upto high school or above. The table further shows that more number of respondents were illiterate in tribal (59.5 percent) blocks than in rural (48 percent) and urban blocks (17 percent).

Of the respondents in rural and tribal blocks maximum number of respondents had received primary level education, 20 and 18 percent respectively; some had completed education up to middle school (18 percent in rural blocks and 10 percent in tribal blocks). Few of the respondents in rural and tribal blocks had completed education till high school or above (6.5 percent in rural block and 7 percent in tribal block). Educational profile of respondents in urban block showed a different trend. More than one-fourth of women had completed education up to middle school, 15 percent had completed primary level education, close to 40 percent had completed education up to high school or above.

**Table 4.3 Educational Status of the Respondents - Pregnant women (Weighted percentage)**

Level of Educational Attainment	Type of Block			Total
	Urban	Rural	Tribal	
Illiterate	17.1	47.9	59.5	46.1
Literate < primary school complete	2.8	7.6	6.0	6.6
Primary school complete	15.3	20.1	17.7	18.9
Middle school completed	26.0	18.1	10.0	17.5
High school complete	14.6	3.5	4.2	5.2
Higher Secondary +2 completed	9.9	1.5	2.0	2.8
Graduate and above	14.1	1.5	0.5	3.0
Unweighted N	333	638	211	1,182

### 4.1.4 Education of Husband of Pregnant Women Respondents

Table 4.4 shows the education level of the respondent's husband. A little less than one-fourth of the respondents (23 percent) reported that their husbands were illiterate; close to one-fifth had a primary pass spouse and another half (49 percent) had their spouses educated up to middle school or more. More number of respondent in tribal block reported that their husband were illiterate (41 percent) than in rural (20 percent) and urban blocks (8.5 percent).

Of the respondents from rural blocks touch less than one-fifth of the total respondents' husband had completed primary education; while marginally less than one-fourth of the respondents' husband were educated up to high school or above. In tribal block 18 percent of the respondents' husband had completed primary level education; followed by 16 percent who had completed education up to middle school. Some had completed high school (8 percent) and higher secondary (5 percent); few of the respondent's husband (2 percent) were graduate and above.

In urban blocks near about one-fifth of the respondent's husband had completed middle school while close two-fifth of them was educated up to high school or above.



**Table 4.4: Education Status of Husbands of the Respondents - Pregnant Women (Weighted percentage)**

Level of Educational Attainment	Type of Block			Total
	Urban	Rural	Tribal	
Illiterate	8.5	20.1	40.9	22.9
Literate < primary school complete	2.9	4.9	7.3	5.2
Primary school complete	15.9	18.9	17.7	18.2
Middle school completed	21.2	27.2	15.9	24.0
High school complete	19.4	11.7	8.0	12.0
Higher Secondary +2 completed	13.5	7.3	5.0	7.7
Graduate and above	16.7	4.1	3.4	5.7
Don't Know	1.9	5.7	1.7	4.3
Unweighted N	333	638	211	1,182

#### 4.1.5 Reproductive Profile of Pregnant Women Respondents

This segment details the reproductive performance of respondent women with respect to number of live births, still births and abortions. Majority of the currently pregnant women had 1-2 live births while for around 8 percent of currently pregnant women, current pregnancy is the first pregnancy. Incidence of still births is not a common phenomenon as indicated by 83.7 percent of respondents who never had a still birth. However a considerable proportion of around 12 percent had one still birth. Block wise differentiation shows that occurrence of still birth is more common in rural and tribal blocks as compared to urban blocks. On the other hand abortions are reported to be higher in urban blocks followed by tribal blocks and rural blocks. Nearly 12 percent of currently pregnant women in urban blocks had at least one abortion in the reproductive life.

**Table 4.5: Live birth details of Currently Pregnant Women (Weighted percentage)**

Number of live births	Type of Block			Total
	Urban	Rural	Tribal	
0	11.6	9.1	3.8	8.2
1	59.7	46.2	41.0	46.7
2	19.0	28.0	30.2	27.4
3	4.9	10.2	13.1	10.2
4	2.4	3.2	5.0	3.5
5	1.7	1.7	3.1	2.0
6	0.0	1.1	2.3	1.3
7	0.7	0.3	1.5	0.6
8	0.0	0.2	0.0	0.1
Mean number of live births $\pm$ SD	1.4 $\pm$ 1.1	1.6 $\pm$ 1.2	2.0 $\pm$ 1.4	1.7 $\pm$ 1.2
Unweighted N	96	525	179	800



Table 4.6: Still birth details of Currently Pregnant Women (Weighted percentage)

Number of still births	Type of Block			Total
	Urban	Rural	Tribal	
0	94.6	81.1	85.7	83.7
1	4.8	12.9	12.2	11.8
2	0.6	3.7	2.1	2.9
3	0.0	1.8	0.0	1.2
5	0.0	0.5	0.0	0.4
Mean number of still births $\pm$ SD	0.1 $\pm$ 0.3	0.3 $\pm$ 0.7	0.2 $\pm$ 0.4	0.2 $\pm$ 0.6
Unweighted N	96	525	179	800

Table 4.7: Abortion details of Currently Pregnant Women (Weighted percentage)

Number of abortion/ miscarriage	Type of Block			Total
	Urban	Rural	Tribal	
0	81.5	88.3	85.3	86.8
1	12.3	8.0	11.1	9.2
2	4.6	2.0	3.0	2.6
3	0.0	1.5	0.0	1.0
4	0.6	0.2	0.6	0.3
5	0.5	0.0	0.0	0.1
6	0.5	0.0	0.0	0.1
Mean number of abortion/ miscarriage $\pm$ SD	0.3 $\pm$ 0.8	0.2 $\pm$ 0.5	0.2 $\pm$ 0.5	0.2 $\pm$ 0.6
Unweighted N	96	525	179	800

## 4.2 Lactating Women

### 4.2.1 Age Profile of Lactating Women Respondent

Age of the respondents as shown in Table 4.7 ranged from 15 to 40 years. There were few respondents (less than one percent) who were above forty as well. Half of the lactating mothers interviewed were between the age group of 20-24 years while more than one-fourth of the total respondents were between 25 and 29 years. 10 percent were from the age group of 15 and 19 years; the remaining 10 percent lactating women were between 30 and 40 years of age. Age profile of the respondents from urban, rural and tribal block showed similar trends of percentage distribution across different age categories.



**Table 4.8: Age Profile of the Respondents - Lactating Women (Weighted percentage)**

Age Groups (in years)	Type of Block			Total
	Urban	Rural	Tribal	
15-19	6.0	8.6	15.4	10.2
20-24	51.3	49.2	53.6	50.8
25-29	32.3	32.1	20.2	28.6
30-34	8.9	6.6	8.8	7.6
35-39	1.1	3.3	1.8	2.5
40+	0.4	0.2	0.3	0.2
Unweighted N	294	551	280	1125

#### 4.2.2 Age at marriage of Lactating Women Respondent

Table 4.8 shows the age at marriage of the respondents. More than three-fourth of the lactating mothers (76 percent) got married at the age below 18 years while nearly 20 percent were married at the recommended age at marriage i.e. between 18 and 21 years. Block wise data showed a higher proportion of women married at early age (i.e. <18 years) in tribal (83 percent) and rural (79 percent) blocks. On the other hand in contrast to nearly 50 percent of women married at age less than 18 years, nearly 40 percent got married at the recommended age i.e. between 18 to 21 years.

**Table 4.9: Age at marriage - Lactating Women (Weighted percentage)**

Age Groups (in years)	Type of Block			Total
	Urban	Rural	Tribal	
<18	49.4	78.8	83.3	76.1
18-21	40.3	18.8	15.0	20.6
>21	10.3	2.4	1.7	3.3
Unweighted N	294	551	280	1125

#### 4.2.3 Educational Status of Respondent of Lactating Women Respondent

Table 4.9 shows the educational status of the lactating women respondents. Of the lactating women interviewed near about half (49 percent) were illiterate; 8 percent were literate but had not completed primary education; 18 percent had completed primary level education; 17 percent had completed middle school; and around 8 percent had completed education till high school or above. The table further reveals that relatively more number of respondents were illiterate in tribal (60 percent) blocks than in rural (49 percent) and urban blocks (21 percent). Of the respondents in rural and tribal blocks close to one-fifth respondents had completed primary level education, viz. 17.5 percent and 20 percent, respectively. As seen earlier with pregnant women, the educational profile of respondents in urban block showed a different trend from rural and tribal blocks. More than one-fourth women had completed education up to middle school, close to one-fifth had completed primary level education, 11 percent had completed high school, around 6 percent had completed education up to higher secondary and 10 percent were graduate and above.



**Table 4.10 Educational Status of the Respondents - Lactating Women (Weighted percentage)**

Level of Educational Attainment	Type of Block			Total
	Urban	Rural	Tribal	
Illiterate	20.9	49.2	60.6	48.7
Literate < primary school complete	6.9	9.1	7.5	8.3
Primary school complete	18.9	17.5	19.6	18.3
Middle school completed	26.6	18.5	9.5	17.0
High school complete	11.3	3.8	1.7	4.2
Higher Secondary +2 completed	5.6	1.4	0.3	1.6
Graduate and above	9.9	0.6	0.8	1.9
Unweighted N	294	551	280	1125

#### 4.2.4 Education of Husband of Lactating Women Respondent

Table 4.4 shows the education level of the respondent's husband. More than one-fourth of the respondents (28 percent) reported that their husbands were illiterate; about one-fourth (25 percent) had received education up to middle school; around 9 percent were literate but had not completed primary education; 16 percent had completed primary level education; 10 percent were educated up to high school; 6 percent had completed higher secondary and 4 percent were graduate and above. Relatively more number of respondent in tribal block reported that their husband were illiterate (40 percent) than in rural (25 percent) and urban blocks (15 percent). Of the respondents from rural blocks 14 percent respondents' husband had completed primary education; over more than one-fourth of respondent's husband were educated till middle school. Around one-fifth had completed education up to high school or above. In tribal block one-fifth of the total respondents' husband had completed primary level education and thirty percent were found to be educated up to middle school or more. In urban blocks near about one-fourth of the respondent's husband had completed middle school, marginally less than one-fifth had completed high school and close to one-fourth had completed education up to higher secondary or above.

**Table 4.11: Education Status of Husbands of the Respondents - Lactating Women (Weighted percentage)**

Level of Educational Attainment	Type of Block			Total
	Urban	Rural	Tribal	
Illiterate	14.6	24.9	39.9	27.9
Literate < primary school complete	3.9	11.3	8.4	9.4
Primary school complete	13.8	14.0	20.4	15.9
Middle school completed	23.9	28.5	18.5	24.9
High school complete	19.0	11.3	4.2	10.3
Higher Secondary +2 completed	9.5	5.6	5.8	6.2
Graduate and above	15.0	2.9	2.2	4.3
Don't Know	0.4	1.2	0.6	0.9
Unweighted N	294	551	280	1125



#### 4.2.5 Reproductive Profile of Lactating Women Respondent

Cumulatively, around one-third of lactating women had at least one live birth. Incidence of still births is quite a uncommon phenomenon as indicated by 88 percent of respondents who never had a still birth. However a considerable proportion of around 9 percent had one still birth. Block wise differentiation shows that occurrence of still birth is more common in rural (12 percent) and tribal blocks (8.2 percent) as compared to urban blocks (6.7 percent). Similarly abortions are reported to be higher in tribal and rural blocks followed by urban blocks. Nearly 12 percent of lactating mothers in tribal blocks had at least one abortion in the reproductive life.

**Table 4.12: Live birth details of lactating women (Weighted percentage)**

Number of live births	Type of Block			Total
	Urban	Rural	Tribal	
1	45.4	34.2	28.5	34.1
2	33.4	31.1	33.3	32.1
3	15.4	19.1	20.2	18.9
4	4.3	7.6	7.7	7.2
5	0.9	5.3	6.4	5.0
6	0.0	1.3	0.8	1.0
7	0.0	1.4	0.8	1.0
8	0.0	0.0	0.6	0.2
9	0.4	0.0	0.6	0.2
10	0.2	0.0	1.1	0.4
Mean number of live births $\pm$ SD	1.9 $\pm$ 1.1	2.3 $\pm$ 1.3	2.5 $\pm$ 1.6	2.3 $\pm$ 1.4
Unweighted N	294	551	280	1125

**Table 4.13: Still birth details of lactating women (Weighted percentage)**

Number of still births	Type of Block			Total
	Urban	Rural	Tribal	
0	92.7	89.4	83.8	88.0
1	6.7	8.2	12.0	9.1
2	0.6	2.3	3.9	2.5
3	0.0	0.2	0.5	0.2
5	0.0	0.0	0.3	0.1
Mean number of still births $\pm$ SD	0.1 $\pm$ 0.3	0.1 $\pm$ 0.4	0.2 $\pm$ 0.6	0.2 $\pm$ 0.5
Unweighted N	294	551	280	1125





**Table 4.14: Abortion details of lactating women (Weighted percentage)**

Number of abortion/ miscarriage	Type of Block			Total
	Urban	Rural	Tribal	
0	88.2	88.2	85.2	87.3
1	8.6	9.1	12.1	9.9
2	2.2	2.3	2.0	2.2
3	0.3	0.4	0.3	0.4
4	0.3	0.0	0.4	0.1
7	0.4	0.0	0.0	0.1
Mean number of abortion/ miscarriage ± SD	0.2 ± 0.6	0.1 ± 0.4	0.2 ± 0.5	0.2 ± 0.5
Unweighted N	294	551	280	1125

### 4.3 Mother of 6 month-3 year old child

#### 4.3.1 Age Profile of Respondent Mother of 6 month-3 year old child

Age of the respondents as shown in Table 4.13 ranged from 15 years to 40 years and above. More than three-fourth of the total respondents interviewed were between the age group of 20 and 29 years; 3 percent were from the age group of 15 and 19 years; 14.5 percent fall under the age group of 30 and 34 years and 5 percent were in the age group of 35 years to 39 years. Age profile of the respondents from urban, rural and tribal blocks showed similar trends.

**Table 4.15: Age Profile of the Respondents - Mother of 6 months to 3 year children (Weighted percentage)**

Age Groups (in years)	Type of Block			Total
	Urban	Rural	Tribal	
15-19	1.1	3.3	4.4	3.3
20-24	36.1	35.3	45.1	38.2
25-29	46.6	40.1	31.9	38.5
30-34	12.2	15.7	12.9	14.5
35-39	3.7	5.1	5.7	5.1
40+	0.3	0.6	0.0	0.4
Unweighted N	296	603	344	1243

#### 4.3.2 Age at Marriage of Respondent Mother of 6 month-3 year old child

Table 4.14 shows the age marriage of mothers of children between six months and three years of age. Close to four-fifth of the mothers (of 6mon to 3 yr old child) were married when they were less than 18 years of age; while 17 percent got married when they were in the age between 18 and 21 years. Block wise data showed similar trend however, in urban blocks more number of women (38 percent) got married between the age of 18-21 years as compared to rural (16 percent) and tribal blocks (11 percent).



**Table 4.16: Age at marriage - Mother of 6 months to 3 year children (Weighted percentage)**

Age Groups (in years)	Type of Block			Total
	Urban	Rural	Tribal	
<18	45.2	80.2	87.2	78.1
18-21	37.7	15.9	10.9	17.1
>21	17.0	3.8	1.9	4.8
Unweighted N	296	603	344	1243

#### 4.3.3 Educational Status of Respondent Mother of 6 month-3 year old child

Table 4.15 shows the educational status of the respondents. Of the mothers interviewed over half (51 percent) were illiterate; close to 8 percent were literate but had not completed primary education; 17.5 percent had completed primary level education; 15 percent had completed middle school; and around 9 percent were educated up to high school or above. The table further describes that more number of respondents were illiterate in tribal (more than 60 percent) blocks than in rural (52.5 percent) and urban blocks (bit less than one-fifth of the total).

One-fifth of the rural respondents had completed primary level education while another one-fifth had completed education up to middle school or above. 12 percent each of tribal respondents had completed education up to primary or middle level. 5 percent of the respondents were also reported to have education up to high school or beyond. Marginally less than one-third of the total urban respondents were reported to have gained education up to high school or above.

**Table 4.17 Educational Status of the Respondents - Mother of 6 months to 3 year children (Weighted percentage)**

Level of Educational Attainment	Type of Block			Total
	Urban	Rural	Tribal	
Illiterate	16.8	52.5	61.9	51.0
Literate < primary school complete	7.1	7.3	8.5	7.6
Primary school complete	16.2	20.2	12.5	17.5
Middle school completed	29.2	13.8	12.0	15.1
High school complete	11.7	2.7	2.6	3.8
Higher Secondary +2 completed	5.2	2.0	0.6	2.0
Graduate and above	13.9	1.3	2.0	3.0
Unweighted N	296	603	344	1243

#### 4.3.4 Education of Husband of Respondent Mother of 6 month-3 year old child

Approximately one-fourth of the respondents reported that their husbands were illiterate; 12 percent respondent's husband were literate but had not completed primary education; 19 percent had completed primary level education; about one-fourth (24 percent) had received education up to middle school; 9 percent were educated up to high school; more than 5 percent had completed higher secondary and around 5 percent were graduate and above.

More number of respondent in tribal block reported that their husband were illiterate (38 percent) than in rural (21 percent) and urban blocks (10 percent). Of the respondents from rural blocks 21 percent respondent's husband had completed primary education; another one-fourth of respondent's husband had completed middle school.



In tribal block 17 percent of the respondent had completed primary level education; 18 percent had completed education up to middle school. In urban blocks one-fourth of the respondent's husband had completed middle school, about one fourth had completed high school; around 8 percent had completed higher secondary and 14.5 percent of the respondents were graduated and above.

**Table 4.18: Education Status of Husbands of the Respondents - Mother of 6 months to 3 year children (Weighted percentage)**

Level of Educational Attainment	Type of Block			Total
	Urban	Rural	Tribal	
Illiterate	10.3	21.4	38.0	24.8
Literate < primary school complete	6.5	11.9	15.4	12.3
Primary school complete	13.4	20.9	16.8	18.8
Middle school completed	25.1	26.5	17.7	23.8
High school complete	22.2	8.4	4.7	9.0
Higher Secondary +2 completed	7.7	5.9	3.5	5.4
Graduate and above	14.5	4.3	2.3	4.9
Don't Know	0.4	0.8	1.6	1.0
Unweighted N	296	603	344	1243

#### 4.3.5 Reproductive Profile of Respondent Mother of 6 month-3 year old child

This segment details the reproductive performance of respondent women i.e. mother of 6 month to 3 year old child with respect to number of live births, still births and abortions. As can be observed in the table below, majority of the respondents had 1 to 3 live births. Tendency of bearing more children increases in tribal blocks and rural blocks in comparison to urban blocks. Nearly 13 percent of the respondents had at least one still birth in their reproductive lifetime while only 8.3 percent had an abortion or miscarriage.

**Table 4.19: Live birth details of Mother of 6 month-3 year old child (Weighted percentage)**

Number of live births	Type of Block			Total
	Urban	Rural	Tribal	
1	33.4	26.8	23.3	26.6
2	42.7	29.9	34.8	32.8
3	15.6	22.4	21.1	21.2
4	6.0	12.2	11.2	11.2
5	2.3	5.9	3.7	4.8
6	0.0	1.3	3.1	1.7
7	0.0	0.9	1.3	0.9
8	0.0	0.4	1.4	0.7
9	0.0	0.1	0.0	0.1
Mean number of live births $\pm$ SD	2.0 $\pm$ 1.0	2.5 $\pm$ 1.4	2.6 $\pm$ 1.5	2.5 $\pm$ 1.4
Unweighted N	296	603	344	1243



Table 4.20: Still birth details of Mother of 6 month-3 year old child (Weighted percentage)

Number of still births	Type of Block			Total
	Urban	Rural	Tribal	
0	88.6	80.5	82.3	82.0
1	8.9	15.4	10.9	13.3
2	2.5	2.3	5.6	3.3
3	0.0	1.1	0.8	0.9
4	0.0	0.5	0.2	0.3
5	0.0	0.2	0.3	0.2
Mean number of still births $\pm$ SD	0.1 $\pm$ 0.4	0.3 $\pm$ 0.6	0.3 $\pm$ 0.7	0.2 $\pm$ 0.6
Unweighted N	296	603	344	1243

Table 4.21: Abortion details of Mother of 6 month-3 year old child (Weighted percentage)

Number of abortion/ miscarriage	Type of Block			Total
	Urban	Rural	Tribal	
0	83.2	88.9	89.0	88.2
1	13.6	7.2	8.3	8.3
2	3.0	3.1	2.5	2.9
3	0.3	0.5	0.3	0.4
5	0.0	0.2	0.0	0.1
7	0.0	0.2	0.0	0.1
Mean number of abortion/ miscarriage $\pm$ SD	0.2 $\pm$ 0.5	0.2 $\pm$ 0.6	0.1 $\pm$ 0.4	0.2 $\pm$ 0.5
Unweighted N	296	603	344	1243

#### 4.4 Mother of 3-6 year old child

##### 4.4.1 Age Profile of Respondent Mother of 3-6 year old child

According to the table 4.13, approximately 20 percent of the total respondents interviewed were between the age group of 20 years to 24 years and about one-fourth of the respondents were between 30 and 34 years of age; nearly one-fifth were in the age group of 20 and 24 years; and 7 percent were in the age group of 35 and 39 years. Age profile of the respondents after desegregating the data into urban, rural and tribal blocks showed similar trends.



**Table 4.22: Age Profile of the Respondents - Mother of 3 years – 6 years old child (Weighted percentage)**

Age Groups (in years)	Type of Block			Total
	Urban	Rural	Tribal	
15-19	0.0	0.2	0.6	0.2
20-24	17.5	20.0	25.3	20.4
25-29	45.5	47.9	40.8	45.1
30-34	25.7	22.7	24.0	24.2
35-39	8.5	6.3	6.4	7.2
40+	2.8	3.0	2.9	2.9
Unweighted N	301	603	340	1244

#### 4.4.2 Age at Marriage of Respondent Mother of 3-6 year old child

Table 4.20 shows the age at marriage of the mothers of children between three and six years of age. Nearly 80 percent of the mothers were married when they were less than 18 years of age; while 15 percent got married when they were in the age between 18 and 21 year. Block wise data showed a high proportion of respondents married at early age in rural blocks (91 percent) and tribal blocks (80 percent).

**Table 4.23: Age at marriage - Mother of 3 years – 6 years old child (Weighted percentage)**

Age Groups (in years)	Type of Block			Total
	Urban	Rural	Tribal	
<18	68.2	91.2	80.3	79.0
18-21	21.5	7.6	15.1	15.2
>21	10.3	1.2	4.6	5.8
Unweighted N	301	603	340	1244

#### 4.4.3 Educational Status of Respondent Mother of 3-6 year old child

According to the table 4.21 approximately half of the respondents (49 percent) were illiterate; 6.5 percent were literate but had not completed primary education; 13 percent had completed primary level education; 16.5 percent had completed middle school; around 6 percent had completed high school; approximately 5 percent had completed higher secondary and 4 percent of the respondents were graduate and above. On further desegregating the data, it is further revealed that tribal blocks (67 percent) had relatively more illiterates than rural (63 percent) and urban blocks (26.5percent). Of the respondents in rural and tribal blocks maximum percentage of respondents had completed primary level education viz. around 14 percent and 9 percent respectively. The educational profile of respondents in urban block showed a different trend and distribution of percentage. A little less than one-fourth women had completed education up to middle school, 15 percent had completed primary level education, 10 percent had completed high school, 9 percent had completed education up to higher secondary and 7 percent were graduate and above. In all, more than one-fourth of the urban women were literate up to high school or above.



**Table 4.24: Educational Status of the Respondents - Mother of 3 years – 6 years old child (Weighted percentage)**

Level of Educational Attainment	Type of Block			Total
	Urban	Rural	Tribal	
Illiterate	26.5	63.0	67.0	49.3
Literate < primary school complete	9.5	5.0	3.8	6.5
Primary school complete	14.6	14.4	9.2	13.1
Middle school completed	22.8	11.9	12.4	16.5
High school complete	9.8	2.9	2.8	5.7
Higher Secondary +2 completed	9.2	1.4	1.9	4.7
Graduate and above	7.4	1.3	2.9	4.2
Unweighted N	301	603	340	1244

#### 4.4.4 Education of Husband of Respondent Mother of 3-6 year old child

Table 4.22 shows the education level of the respondent's husband. More than one-fourth of the respondents (28 percent) reported that their husbands were illiterate; 7.5 percent respondent's husband were literate but had not completed primary education; 17 percent had completed primary level education; 19 percent had received education up to middle school; 10 percent were educated up to high school; 8 percent had completed higher secondary and around 11 percent were graduate and above.

More number of respondent in tribal block reported that their husband were illiterate (41 percent) than in rural (29 percent) and urban blocks (17 percent). Of the respondents from rural blocks 21 percent respondent's husband had completed primary education and approximately one-fourth (22.5percent) of them had received middle school education. In tribal block 16 percent of the respondent had completed primary level education; 18 percent had completed education up to middle school. In urban blocks 16.5 percent of the respondent's husband had completed middle school, 15 percent had completed high school; 11 percent had completed higher secondary and 18 percent of the respondents were graduated and above.

**Table 4.25: Education Status of Husbands of the Respondents - Mother of 3 years – 6 years old child (Weighted percentage)**

Level of Educational Attainment	Type of Block			Total
	Urban	Rural	Tribal	
Illiterate	16.7	29.0	42.8	27.7
Literate < primary school complete	8.4	7.1	6.7	7.5
Primary school complete	13.8	21.2	15.7	16.8
Middle school completed	16.5	22.5	17.8	18.8
High school complete	14.6	7.7	6.7	10.2
Higher Secondary +2 completed	11.4	6.3	3.9	7.7
Graduate and above	18.2	5.3	5.6	10.6
Don't Know	0.3	0.9	0.8	0.6
Unweighted N	301	603	340	1244



#### 4.4.5 Reproductive Profile of Respondent Mother of 3-6 year old child

As depicted in the table below, more than one-third of the total women had two live-births; and marginally more than one-fourth of the mothers had three live births. More or less similar percentage distribution with minor deviations was observed across the three block types. It can be inferred from the findings that less number of children or even single child is more common in urban blocks. Overall around 12 percent cases of still-births were reported. Urban women recorded the least percentage of still-births followed by tribal and then rural women. Almost 10 percent of abortion cases were reported, round about 14 percent cases were reported. Urban women reported the least cases of abortions.

**Table 4.26: Live birth details of Mother of 3-6 year old child (Weighted percentage)**

Number of live births	Type of Block			Total
	Urban	Rural	Tribal	
1	15.3	8.1	9.0	11.3
2	39.4	32.9	38.8	37.1
3	25.4	27.5	26.2	26.3
4	12.3	17.7	12.6	14.2
5	4.9	7.3	8.2	6.6
6	2.0	4.2	2.9	3.0
7	0.0	1.2	1.5	0.8
8	0.3	0.8	0.2	0.5
9	0.0	0.2	0.4	0.2
10	0.3	0.0	0.0	0.1
11	0.0	0.1	0.2	0.1
Mean number of live births $\pm$ SD	2.6 $\pm$ 1.3	3.1 $\pm$ 1.4	2.9 $\pm$ 1.4	2.8 $\pm$ 1.4
Unweighted N	301	603	340	1244

**Table 4.27: Still birth details of Mother of 3-6 year old child (Weighted percentage)**

Number of still births	Type of Block			Total
	Urban	Rural	Tribal	
0	90.1	77.8	81.7	83.8
1	8.3	16.9	11.0	11.8
2	1.5	4.5	5.6	3.6
3	0.0	0.8	0.5	0.4
4	0.1	0.0	1.3	0.4
Mean number of still births $\pm$ SD	0.1 $\pm$ 0.4	0.3 $\pm$ 0.6	0.3 $\pm$ 0.7	0.2 $\pm$ 0.6
Unweighted N	301	603	340	1244



Table 4.28: Abortion details of Mother of 3-6 year old child (Weighted percentage)

Number of abortion/ miscarriage	Type of Block			Total
	Urban	Rural	Tribal	
0	84.2	88.7	85.1	85.9
1	10.8	8.5	10.5	10.0
2	2.6	2.5	3.5	2.8
3	1.6	0.4	0.3	0.9
4	0.0	0.0	0.2	0.1
5	0.7	0.0	0.3	0.4
Mean number of abortion/ miscarriage $\pm$ SD	0.2 $\pm$ 0.7	0.1 $\pm$ 0.4	0.2 $\pm$ 0.6	0.2 $\pm$ 0.6
Unweighted N	301	603	340	1244

## 4.5 Adolescent Girls

### 4.5.1 Age Profile of Adolescents

More than half of the adolescent girls interviewed were in the age group of 10 to 14 years (53 percent) and remaining 47percent were between 15 and 19 years. In rural and tribal blocks more percentage of adolescent girls in the age group of 10 to 14 years were interviewed where as in urban blocks more percentage of adolescent girls in the age group of 15 to 19 years were interviewed.

Table 4.29: Age Profile of the Respondent - Adolescent Girls (Weighted percentage)

Age group (in yrs)	Type of Block			Total
	Urban	Rural	Tribal	
10-14 years	47.5	59.8	55.7	53.0
15-19 years	52.5	40.2	44.3	47.0
Unweighted N	303	613	332	1248

### 4.5.2 Educational Status of Adolescents

Of the adolescent girls interviewed 38 percent had completed primary level education; another about one- third of them had completed middle school; 9 percent had completed high school; 9 percent were literate but had not completed primary level education; and around 4 percent of them were illiterate. In rural and tribal block 47 and 40 percent respondents had completed primary level education respectively and around 30 percent of respondents in each of the two block types had completed middle school education. In urban block 31 percent had completed primary level education; 38.5 percent had completed middle school; 13 percent had completed high school and 7 percent of them had completed education up to higher secondary.





Table 4.30: Educational Status of the Respondents - Adolescent Girls (Weighted percentage)

Level of Educational Attainment	Type of Block			Total
	Urban	Rural	Tribal	
Illiterate	0.9	5.9	9.8	4.4
Literate < primary school complete	7.3	10.5	9.4	8.7
Primary school complete	31.4	47.3	40.3	38.0
Middle school completed	38.5	30.1	29.8	34.1
High school complete	13.1	4.7	7.5	9.4
Higher Secondary +2 completed	7.2	1.3	2.5	4.4
Graduate and above	1.7	0.3	0.7	1.0
Unweighted N	303	613	332	1248

## Chapter V

### Awareness of AWC and its Services

ICDS, an inter-sectoral programme provides a package of integrated services in a comprehensive and cost effective manner to meet the multi-dimensional and interrelated needs of mothers (pregnant and lactating); and children, below six years, especially from vulnerable and remote areas. ICDS consists of six basic components for service delivery:

- a) Supplementary nutrition
- b) Non-formal pre-school education
- c) Immunization
- d) Health Check-up
- e) Referral services
- f) Nutrition and Health Education

Under ICDS project supplementary nutrition is given to children below 6 years of age and to nursing and expectant mothers. Special attention is given to the delivery of supplementary nutrition to children below 3 years of age. The amount of nutrition varies according to the age of the child. Children who are found as a result of health check-up to suffer from third degree of malnutrition are given enhanced supplementary nutrition (therapeutic food) based on their physical need. Non-formal pre-school education is imparted to children of 3-6 years through the institution of anganwadi centers. Through pre-school education the ICDS scheme establishes link with the elementary school so that the child moves from the anganwadi to the school with the necessary emotional and mental preparation.

Immunization of pregnant women against tetanus and infants to protect them from preventable diseases forms another component of ICDS services. Health Check-up and Referral Services in the anganwadi includes antenatal care to pregnant mothers, post natal care, and care of children under 6 years of age. Pregnant mothers and children with problems requiring specialized treatment are referred to the upgraded PHC/sub-division district head quarters hospital as the case may be. Nutrition and health education is given to all women in the age-group 15-45 years with prioritized focus on pregnant and lactating mothers. A special follow-up is made of mothers whose children suffer from malnutrition or from frequent illness.

Since the ICDS scheme is based on the strategy of an inter-sectoral approach to the development of children, there is coordination of the efforts of different ministries and departments at all levels. The three services namely immunization, health check-up and referral are delivered through public health infrastructure viz. Health Sub Centres, Primary and Community Health Centers under the Ministry of Health & Family Welfare.

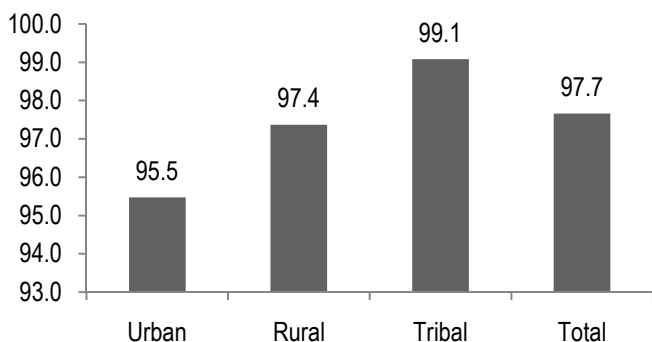
The anganwadi is the focal point for delivery of the entire package of child development services. In this purview the following section delves into awareness and access to AWC among the target beneficiaries i.e. pregnant mothers, lactating mothers, mother of 6 month to 3 year old child and mother of 3 year to 6 year old child. The present chapter describes the overall findings of each thematic segment followed by beneficiary-wise details. An attempt has also been made to explore the block differentials pertaining to awareness and services of AWCs.



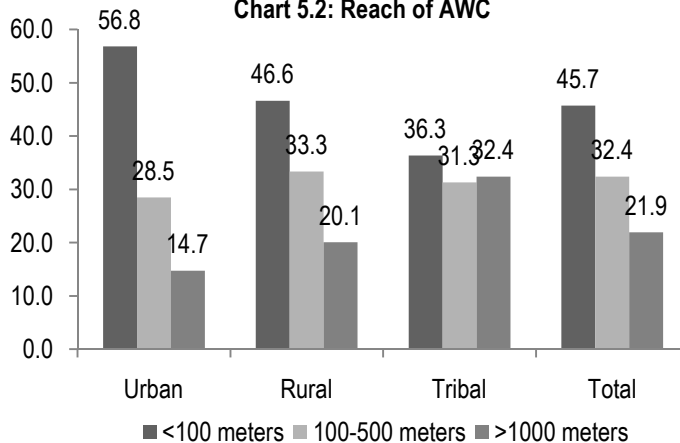
### 5.1 Awareness and Access to AWC

The awareness regarding availability of AWC among the surveyed population is almost universal, wherein on an average 98 percent of the target beneficiaries know about existence of AWC in the village. Segregated analysis by type of blocks indicates marginal differences among the urban, rural and tribal blocks. For majority of the households (78.1 percent) the AWC is located within the proximity of 500 meters. For about 73 percent of the respondents AWC is located at within 10 minutes of distance. Across the block findings show better accessibility in urban blocks followed by rural and tribal blocks (Table 5.1 annexed). In this context the accessibility is defined by distance of AWC and the time taken to reach the AWC.

**Chart 5.1: Awareness about AWC**



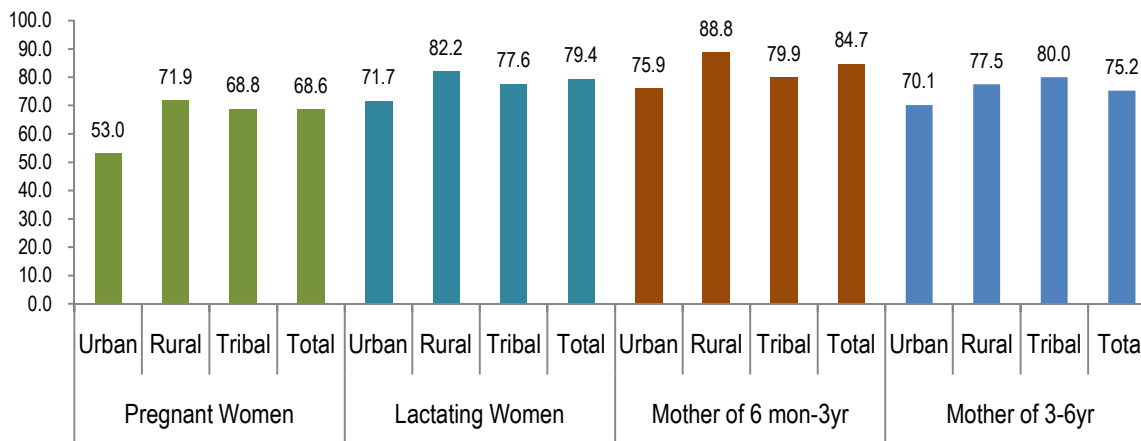
**Chart 5.2: Reach of AWC**



### 5.2 Ever Utilization of Services

The findings show that utilization of services is relatively high in rural blocks for all the beneficiary groups except for mothers of 3-6 year old child where utilization of anganwadi center is higher in tribal blocks. As expected, the utilization of anganwadi center and its services is little lower in urban blocks.

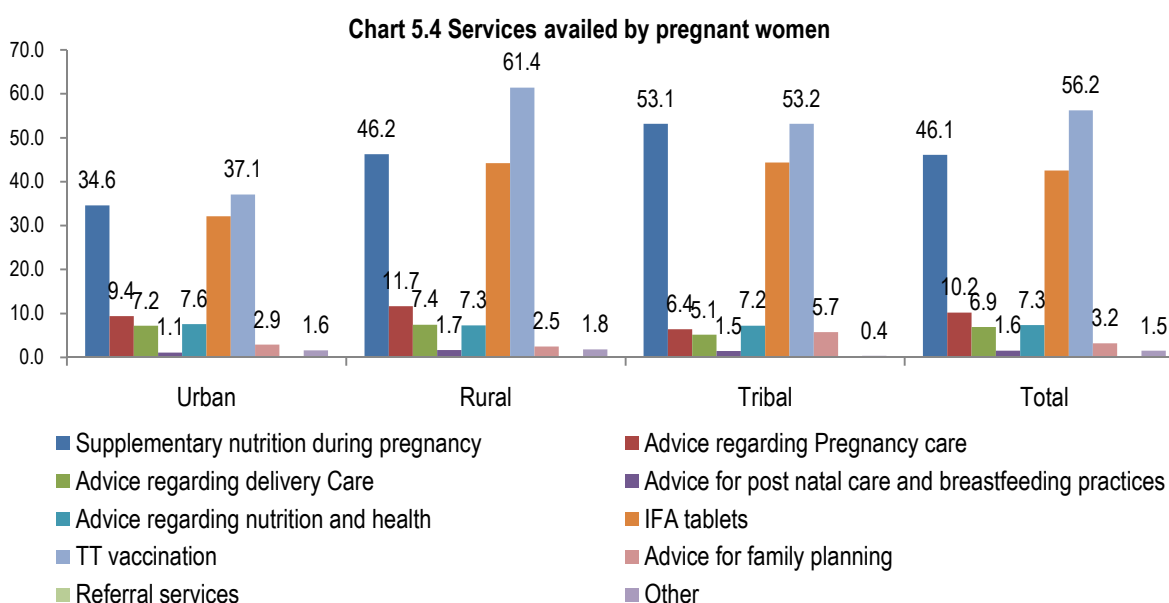
**Chart 5.3: Ever utilized services from AWC**



Beneficiary-wise findings with respect to type of services availed from AWC and community's perceptions related to AWC services is discussed in the following segment.

### Pregnant women

Beneficiary-wise analysis on utilization of services shows that a total of 46.1 percent of the pregnant women beneficiaries received supplementary nutrition. Nearly 56 percent of the pregnant women availed TT vaccination while 42.5 percent of the pregnant women received IFA tablets as a component of ANC services. Across the block comparison shows that utilization of services is higher in tribal blocks, wherein 53.1 percent of the pregnant women reportedly has availed supplementary nutrition, as compared to rural (46.2 percent) and urban (34.6 percent) blocks. Other services availed by pregnant women beneficiaries include advice for pregnancy care (10.2 percent), nutrition intake (7.3 percent) and advice for delivery care (6.9 percent). (Table-A 5.2 annexed).

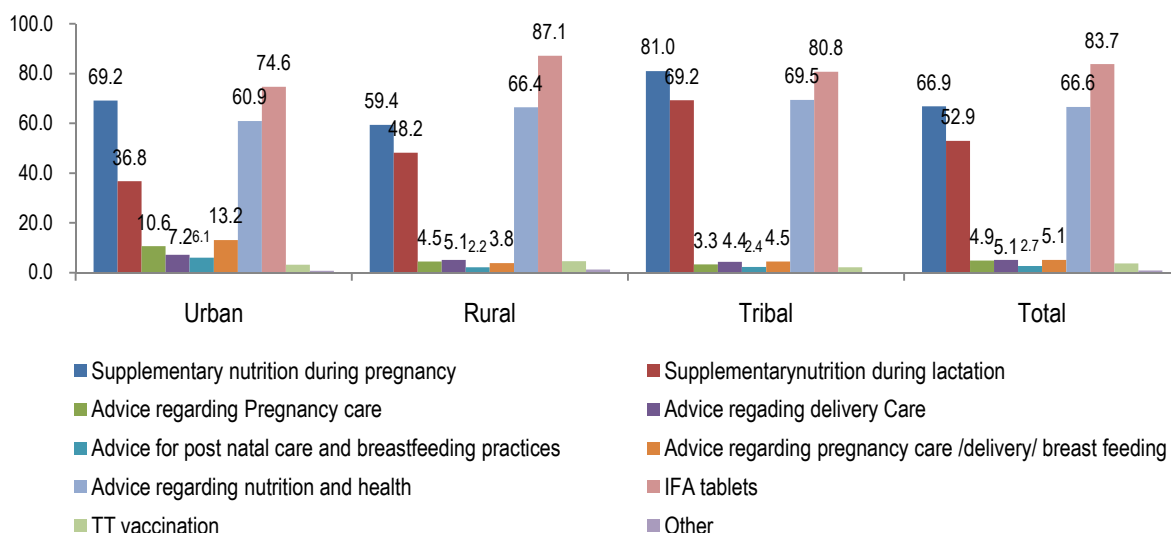


### Lactating women

About 67 percent of lactating women mentioned that they had received supplementary nutrition during pregnancy while 53 percent are receiving supplementary nutrition during lactation. Analysis by type of block shows that 69.2 percent of lactating women in tribal blocks has received supplementary nutrition as compared to 48.2 percent in rural and 36.8 percent in urban blocks. Nearly 66 percent of the lactating women mentioned about the advice received regarding nutrition and health of mother and child. Across the block comparison shows that utilization of anganwadi services is higher in case of tribal blocks followed by urban blocks and rural blocks. (Table -A 5.3 annexed).



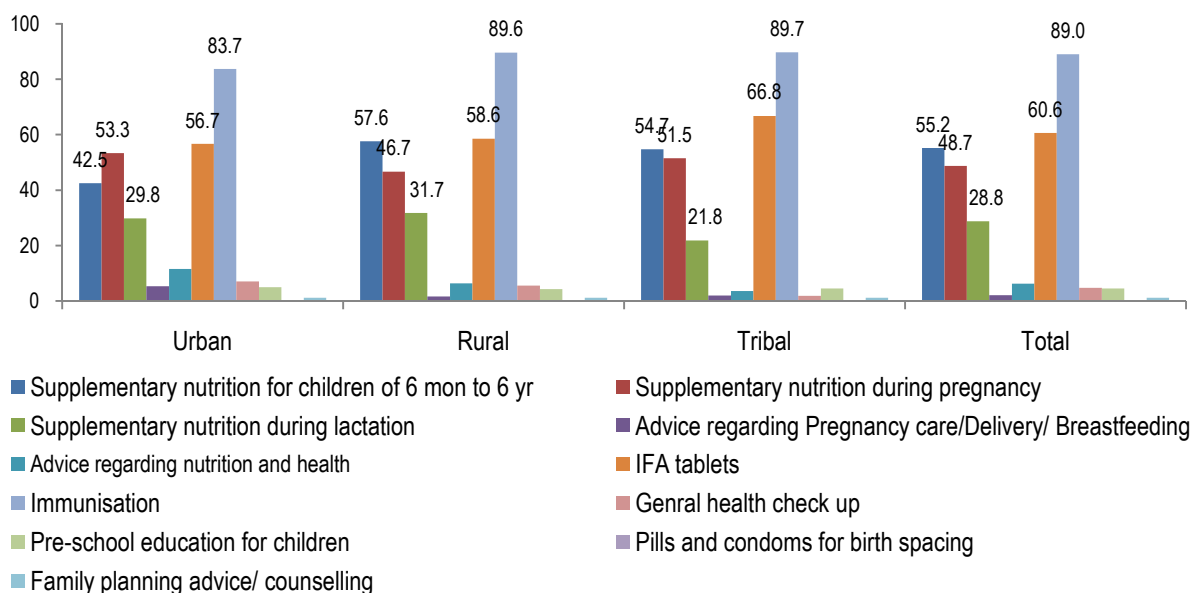
Chart 5.5 Services availed by lactating mothers



**Mothers of children of age 6 month to 3 year**

As a component of AWC services Anganwadi provides immunization to children under 2 years. Almost 89 percent of mothers of children aged 6 months to 3 years have received immunization services. More than 55 percent of mothers of children aged 6 months to 3 years availed supplementary nutrition from AWC for their child. Among the blocks 57.6 percent of mothers (of children 6 month – 3 yrs) in rural blocks received supplementary nutrition as compared to 54.7 percent of mothers in tribal blocks and 42.5 percent of mothers in urban blocks. (Table-A 5.4 annexed).

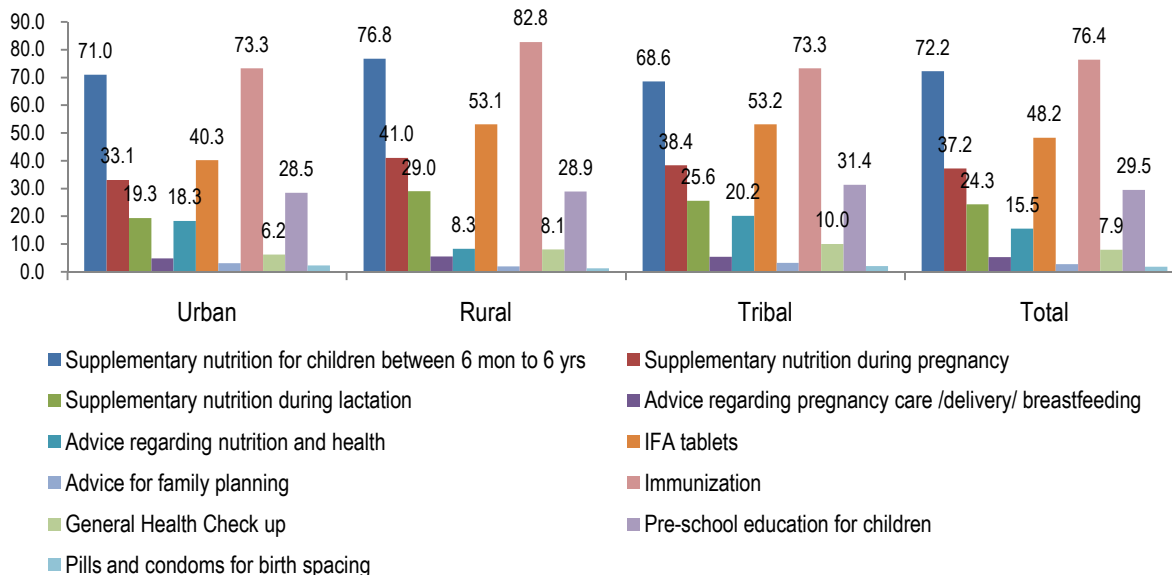
Chart 5.6 Services availed by mother of 6 month to 3 year old child



**Mothers of children of age 3 year to 6 years**

Nearly 76 percent of the beneficiary mothers of children aged 3 years to 6 years has availed immunization services while 72.2 percent received supplementary nutrition for their children. The differentials across the type of blocks show that higher proportion of respondents availed supplementary nutrition and immunization services in rural blocks followed by urban blocks and tribal blocks. The findings show that overall 29.5 percent of the mothers send their children for pre-school education, while the percentage varies from 31.4 percent in tribal blocks to 28.5 percent in urban blocks. (Table-A 5.5 annexed).

**Chart 5.7 Services availed by mother of 3-6 year old child**



Better utilization of AWC services is attributed to work of AWW. Women groups during group discussions viewed that anganwadi worker maintains regular contact with the women in the community through home visits and group meetings. Regular *mahila mandal* meetings were reported to be organized in most of the villages, which provides a platform for interaction on mother and child health issues. Home visits are seen as a tool for developing and maintaining acquaintanceship with the households, specifically women. Home visits made by Anganwadi worker varies from once a month to more than four times a month. Tribal women from Devsar village in Singhrauli district talked about their interaction with anganwadi worker. In the words of community women:

*“Anganwadi karyakarta when come to know about a pregnant women she comes for a visit. Generally she makes two visits in a month and keep asking about health of expectant mother even when she meet in the street. She provides iron tablets, tells us about the kind of food a pregnant woman should consume, and give information about child care”. (Village Devsar, District Singhrauli)*

Women from Tribal village Badaguda of Jobat Block, Jhabua district shares that the anganwadi worker meets women during her rounds in the village. During women’s meeting AWW inform women about different services available in AWW and about when to avail which service.



Among the survey respondents 70.6 percent of pregnant women, 36.4 percent of mothers of children 6 months to 3 years and 36.3 percent of mothers of children aged 3 to 6 years have visited AWC in past one month for availing services. Of those who visited the AWC 95 percent of the respondents have received the required services at the AWC.

**Table 5.1: Services from AWC in past one month (Weighted percentage)**

	Pregnant women				Mother of children 6 month to 3 year				Mother of children 6 month to 3 year			
	Urban	Rural	Urban	Total	Urban	Rural	Urban	Total	Urban	Rural	Tribal	Total
Visit to AWC in last one month	83.2	65.5	80.2	70.6	39.2	32.7	43.0	36.4	35.6	29.3	45.6	36.3
Unweighted N	180	476	140	796	291	602	343	1236	296	569	339	1,204
Received required service	95.9	90.4	91.7	91.4	98.1	96.4	97.3	96.9	98.4	97.8	93.9	96.7
Unweighted N	150	321	112	583	116	192	145	453	105	165	157	427

### 5.3 Knowledge of Schemes under ICDS

ICDS run various schemes to fulfill the objectives mandated in the programme. These schemes are broadly aimed at extending welfare and benefits to target beneficiaries. The schemes are funded and sourced through multiple agencies like the state government, central government, state-level agencies like World Food Programme, UNICEF and Cooperative for Assistance and Relief Everywhere (CARE).

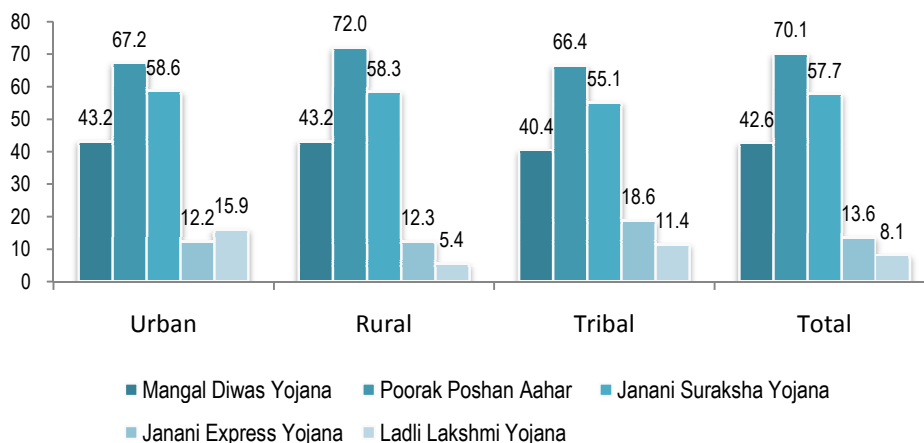
#### Schemes for pregnant women

Findings for knowledge and utilization of schemes under ICDS show that more than 42 percent of pregnant women were aware of *Mangal Diwas Yojana*, specifically *Godh Bharai Diwas* which is mainly celebrated to provide benefits to pregnant women. Of these 59.2 percent of the pregnant women reported participation in celebration of *Mangal Diwas*. Slight differential were evident across the type of block comparison, where 43.2 percent of pregnant women in urban and rural blocks; and 40.4 percent in tribal blocks were aware of *Mangal Diwas Yojana*. The participation of pregnant women in *Mangal Diwas* was reported to be higher in tribal blocks (65.4 percent) as compared to urban (58.4 percent) and rural (57.4 percent) blocks. Nearly 70 percent of the pregnant women were aware about *Poorak Poshan Aahar* (supplementary nutritional diet) being distributed through AWC. Of those who were aware of *Poorak Poshan Aahar* 67 percent were receiving benefits under the scheme. (Table-A 5.6 annexed).

*Janani Suraksha Yojana* (JSY) is running as a revised scheme of National Maternity Benefit Scheme under NRHM. It integrates the cash assistance with antenatal care during the pregnancy period, institutional care during delivery and immediate post-partum period in a health centre. In the present study 57.7 percent of the pregnant women respondents were aware of JSY. The knowledge of another scheme, *Janani Express Yojana*, for pregnant women which provides 24 hour transport availability in order to bring the pregnant women to the health facility, is found to be lower (13.6 percent). However block differential on the awareness of *Janani Express Yojana* shows high awareness among tribal blocks (18.6 percent) as compared to rural (12.3 percent) and urban (12.2 percent) blocks.



Chart 5.8: Awareness of pregnant women about ICDS schemes

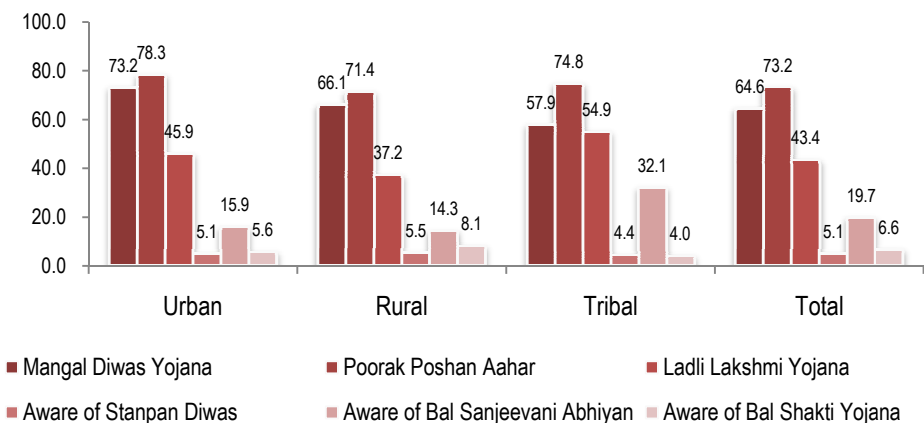


**Schemes for lactating mothers**

Nearly 73 percent of the lactating women were aware of *Poorak Poshan Aahar* while 64.6 percent knew about *Mangal Diwas Yojana*. Of these, almost 66 percent of the respondents mentioned that they ever participated in *Mangal Diwas*. Further to this, only 5.1 percent of lactating women mentioned about *Stanpan Diwas* being celebrated once in a year specifically for lactating women, out of which 18.8 percent ever participated in celebration of *Stanpan Diwas*. Block-wise analysis shows considerably higher participation of lactating women in urban blocks (52.9 percent) as compared to rural (13.4 percent) and tribal (16.4 percent) blocks. (Table-A 5.6 annexed).

Segregated analysis by type of blocks indicates higher awareness as well as participation of lactating women beneficiaries on schemes such as *Poorak Poshan Aahar* and *Mangal Diwas Yojana* in urban blocks (78.3 percent and 73.2 percent) as compared to rural (71.4 percent and 66.1 percent) and tribal (74.8 percent and 57.9 percent) blocks. On the other hand awareness about *Ladli Lakshmi Yojana* and *Bal Sanjeevani Abhiyan* is found to be higher in tribal blocks (54.9 percent and 32.1 percent, respectively) followed by urban and rural blocks (45.9 percent and 15.9 percent in urban blocks; 37.2 percent and 14.3 percent in rural blocks, respectively).

Chart 5.9: Awareness of lactating women about ICDS schemes



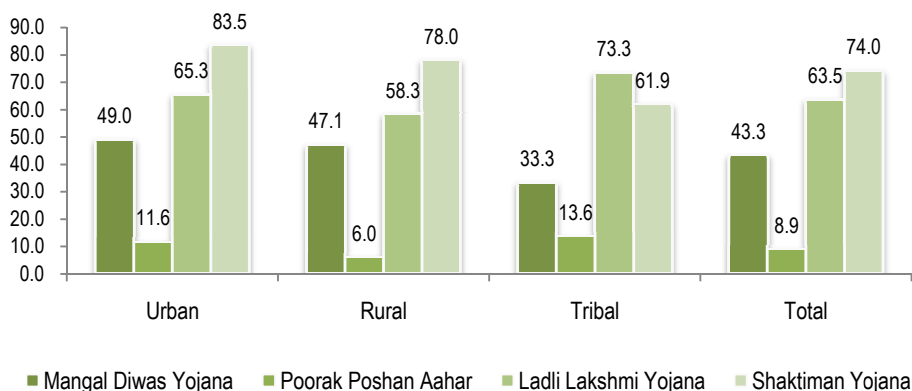


**Schemes for Mother of children of age 6 month to 3 year**

Majority of the mothers of children in the age of 6 month to 3 years mentioned about *Shaktiman Yojana* (74 percent) and *Ladli Lakshmi Yojana* (63.5 percent). Across the block comparison shows that awareness of *Shaktiman Yojana* is higher in urban blocks (83.5 percent) while knowledge about *Ladli Lakshmi Yojana* is higher in tribal blocks (73.3 percent). Awareness about other schemes such as *Mangal Diwas Yojana* (43.3 percent) and *Poorak Poshan Aahar* (8.9 percent) also varies across the blocks, where 49 percent of urban respondents reported knowledge of *Mangal Diwas Yojana* while 13.6 percent in tribal blocks knew about *Poorak Poshan Aahar*. (Table-A 5.6 annexed).

Among the respondent mothers of children in the age of 6 month to 3 years, majority (63.5 percent) were receiving benefits under *Poorak Poshan Aahar Yojana* while 51 percent had utilized benefits under *Janani Suraksha Yojana* (JSY). It is evident from the findings that awareness of *Poorak Poshan Aahar Yojana* is low (only 8.9 percent) while the utilization of service is high (63.5 percent) among the beneficiaries. It can be inferred that community is not aware of scheme by its names however they are utilizing and receiving the benefits under the scheme. Utilization of services under *Poorak Poshan Aahar* is more prominent in tribal blocks while JSY is most utilized in rural blocks.

**Chart 5.10: Awareness of mother of 6 month to 3 year child about ICDS schemes**



**Schemes for Mother of children of age 3 to 6 year**

Overall almost 84 percent of beneficiary mothers of children of age 3 to 6 years knew about *Poorak Poshan Aahar* and 34 percent were aware of *Mangal Diwas Yojana*. Further 62.7 percent of the respondents mentioned about *Janani Suraksha Yojana*. Block-wise analysis shows higher awareness of *Mangal Diwas Yojana* and *Janani Suraksha Yojana* in urban blocks (40.8 percent and 69.8 percent, respectively) while awareness of *Poorak Poshan Aahar* is higher in rural blocks (89.5 percent) as compared to other blocks.

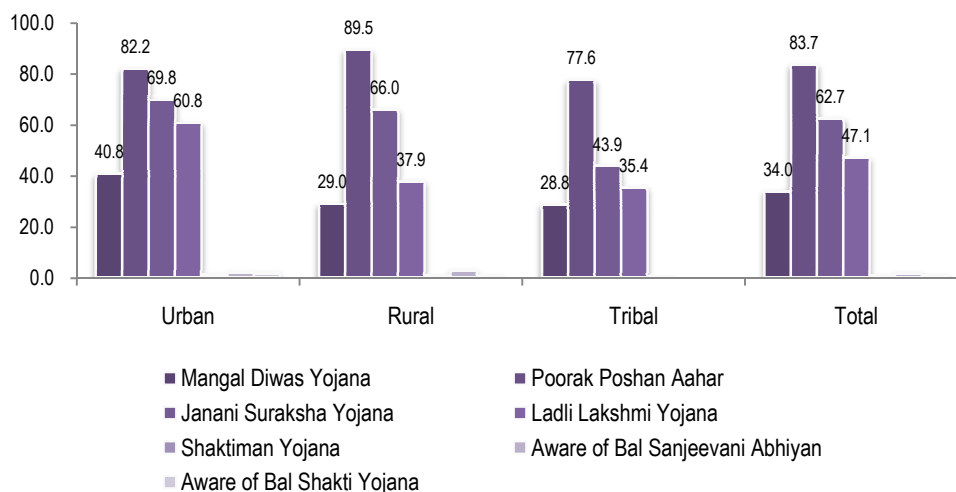
Findings show that 77.7 percent of respondent beneficiaries were receiving benefits under any of these schemes. Scheme utilization is found to be better in rural blocks (81.7 percent) as compared to urban (78.1 percent) and tribal blocks (70.9 percent). Majority of the respondent beneficiaries (91.8 percent) were receiving supplementary nutritional diet under *Poorak Poshan Aahar* scheme. (Table-A 5.6 annexed).

AWW is found to be the most common source of knowledge about ICDS schemes in the community as majority of the respondents (71.2 percent on an average) mentioned that they come to know about various schemes and



services in AWC by inter-personal communication with AWW. This has been corroborated by findings from qualitative discussions.

**Chart 5.11: Awareness of mother of 3-6 years child about ICDS schemes**



Evidently, schemes such as Poorak Poshan Aahar, Mangal Diwas, Shaktiman Yojana and Ladli Lakshmi Yojana have encouraged community members for their increased participation in ICDS programme. Celebration of occasions like annaprashan for children completing 6 months), birthdays of children, godbharai (for pregnant women) involve local leaders and community members. Involvement of panchayat members on specific occasions also influences the participation of community, as is been evidenced by following verbatim:

*“Earlier we were little hesitant to participate in celebrations. It is only after anganwadi behenji insisted on attending the celebration with my child I found it good and useful. When my family saw our panchayat members also visiting the occasion they too started believing in these schemes and services.”*

Inter-personal communication, specifically contact with AWW and information from friend/relative has been found to be the most common source of information about the schemes across the different type of blocks. Thus despite the endeavor to spread the word through multiple channels of IEC including mass media (print and electronic) and folk media, inter-personal communication through AWW seems to have worked the best.

Anganwadi worker is the key source of information about various government schemes as information given by them is easily comprehended and community doesn't face difficulty in understanding. Most women recalled *Mangal Diwas* where ceremony of godhbharai is celebrated on Tuesday for women in their seventh month. Beneficiaries (pregnant and lactating women) shared:

*“yes we know about mangal diwas. It is celebrated every Tuesday of a month. In this first Tuesday is godhbharai, second Tuesday janamdin, third Tuesday aanprasanan and last Tuesday kishori diwas is celebrated. During godhbharai women are given bangals, bindi, coconut and on janam diwas toys are given for the child”. (Women, Village Babriya, District Balaghat)*



## Chapter VI

### Antenatal Care

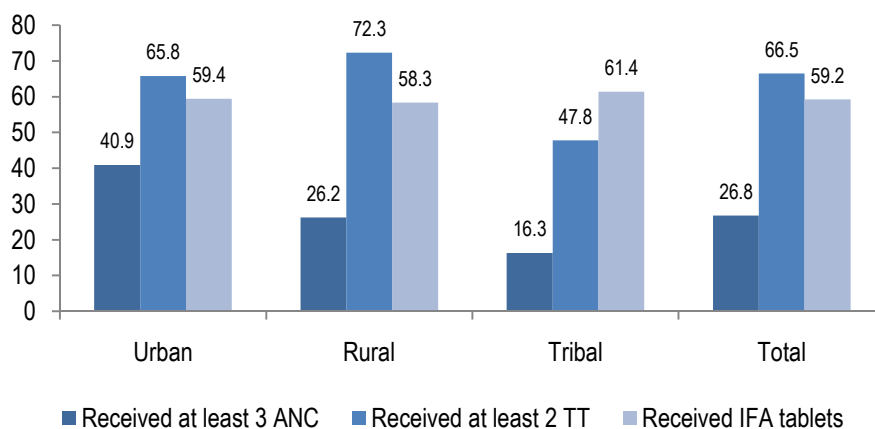
ICDS in collaboration with health department serve as the focal point for all health and nutrition services. Health check-up, which is one of the service components of ICDS, includes antenatal care of pregnant women. In India, the Reproductive and Child Health Programme aims at providing at least three antenatal check-ups which should include a weight and blood pressure check, abdominal examination, immunization against tetanus, iron and folic acid prophylaxis, as well as anemia management (Ministry of Health and Family Welfare, 2005). In the present study information on pregnancy care is gathered from women who were pregnant at the time of survey. The following chapter provides the details of utilization of antenatal care services and source of antenatal care services received by pregnant women beneficiaries.

#### 6.1 Type and source of antenatal care services received

Pregnant women respondents were asked about the registration of pregnancy and services received during antenatal care. Almost 79 percent of respondent pregnant women reported to have registered their pregnancy. Among these majority (82.9 percent) claimed that they have registered their pregnancy at AWC. The registration of pregnancy at AWC is found to be higher in case of rural (86.2 percent) and tribal (84.1 percent) blocks as compared to urban blocks (66.6 percent). Nearly 17 percent of respondents registered themselves within one month of pregnancy (Table A – 6.1 annexed).

Among the pregnant women who registered themselves during pregnancy, 61.2 percent of the respondents had received ANC during pregnancy. Block differentials show substantial difference in proportion of respondents who received ANC in urban blocks (79.3 percent) in contrast to tribal (59.2 percent) and rural (58 percent) blocks. Distribution of respondents by type of service received across the blocks show higher service utilization with regard to at least 3 antenatal checkups in urban blocks whereas TT vaccination is higher in rural blocks (Table A – 6.2 annexed).

Chart 6.1: Type of antenatal care services during pregnancy



Older women i.e. women in the age group of 35-49 years are less likely than younger women to avail antenatal care for their recent pregnancy. Also the likelihood of receiving antenatal care declines as the birth order increases. More than 76 percent of pregnant women respondents who received antenatal care belonged to the age group of 20-24 years while 73.8 percent were mothers of second or third order birth. The trend across the type of blocks witnessed higher antenatal care by age and birth order in urban blocks as compared to rural and tribal blocks. Higher utilization of services by younger women clearly evidences the improved implementation strategy wherein improved reach to the beneficiaries reflect better programme outcomes. Differences have been observed in availing ANC across type of blocks. The level of education attainment and urbanized set up can be accounted for influential factors resulting in higher proportion of women availing ANC during 2<sup>nd</sup> and 3<sup>rd</sup> birth order in urban blocks

**Table 6.1: Antenatal check up during pregnancy by age of respondent and birth order (Weighted percentage)**

Indicator	Urban	Rural	Tribal	Total
<b>Age of respondent (in yrs)</b>				
<20	17.8	22.7	26.1	22.5
20-34	81.8	75.8	72.5	76.2
35-49	0.4	1.5	1.4	1.3
<b>Birth Order</b>				
2-3	82.4	75.2	64.2	73.8
4-5	15.0	19.3	29.0	20.7
6+	2.6	5.6	6.9	5.4
Unweighted N	259	367	124	750

Majority of the respondents (55.2 percent) has visited doctor for receiving antenatal care and 49.2 percent received antenatal care from ANM. Across the block comparison shows that ANM is the most common source of receiving antenatal care in tribal blocks (69.4 percent) followed by rural blocks (51.6 percent) while doctors are most visited in urban blocks (86.3 percent) for antenatal care services. The source of antenatal care by type of service availed indicate higher service utilization through AWC/AWW as compared to health center (SC/PHC/CHC/Hospital) specifically in rural and tribal blocks than urban blocks. Almost 55 percent of the respondents mentioned that they had received TT vaccination through AWC in contrast to 30.5 percent who had received TT vaccination from any health center. (Table-A 6.2 annexed).

*'AWW suggest us about taking care during pregnancy. We also often visit her and clarify our problem if there is any problem. She is the only one we can rely upon and is always available to us as she stays in the village. Anganwadi also celebrates Mangal Diwas in which pregnant women participate when it is day for godbharai.'* (Village Muskabad, Raisen)

Majority of the respondents (55.2 percent) has visited doctor for receiving antenatal care and 49.2 percent received antenatal care from ANM. Across the block comparison shows that ANM is the most common source of receiving antenatal care in tribal blocks (69.4 percent) followed by rural blocks (51.6 percent) while doctors are most visited in urban blocks (86.3 percent) for antenatal care services. The source of antenatal care by type of service availed indicate higher service utilization through AWC/AWW as compared to health center (SC/PHC/CHC/Hospital) specifically in rural and tribal blocks than urban blocks. Almost 55 percent of the respondents mentioned that they had received TT vaccination through AWC in contrast to 30.5 percent who had received TT vaccination from any health center. (Table-A 6.2 annexed).

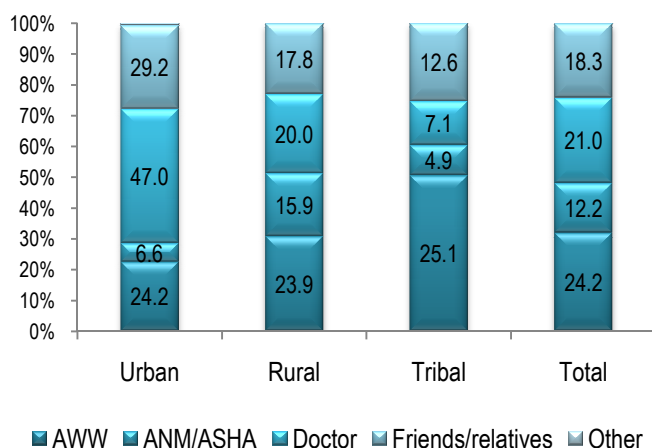
Nearly 34 percent of the respondents had undergone anemia testing and 12.4 percent had undergone malaria testing during pregnancy. The proportion of respondents who had taken anemia and malaria test is higher in urban blocks followed by tribal and rural blocks. Overall only 0.7 and 2.6 percent of respondents took de-worming and anti-malaria drugs during pregnancy. These proportions were universally low across the blocks (Table A – 6.3 annexed).



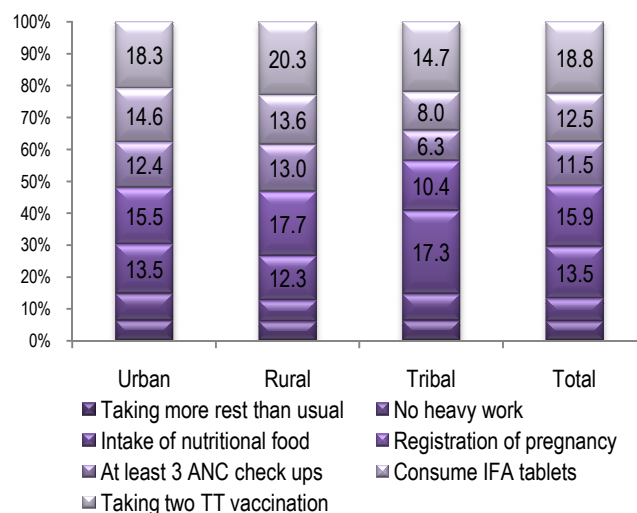
## 6.2 Advice during pregnancy

Knowledge about antenatal care is critical to ensure better health of mother and child. Thus information on pregnancy care is as important as utilization of services. Among the pregnant women respondents 24.2 percent of respondents mentioned that they had been advised about pregnancy care by AWW and 21 percent had received such advice from doctor. As expected, doctor is the common source for receiving advice on pregnancy care in case of urban blocks (47 percent) while AWW is the most common source in tribal blocks (25.1 percent). Overall 18.3 percent of respondents mentioned that they had been advised by their friends/neighbours and relatives regarding care that needs to be taken during pregnancy. When asked about the advice given by AWW to pregnant women respondents, most of the respondents received the advice for registration of pregnancy (15.9 percent), availing TT vaccination (18.8 percent), consumption of IFA tablets (12.5 percent) and antenatal checkups (11.5 percent) (Table A – 6.4 annexed). Besides this respondents also mentioned about advice received for taking more rest than usual, avoiding heavy work and increasing intake of nutritious food. AWW also provided knowledge on complications that can occur during delivery. This includes swelling, deficiency of iron, high fever, prolonged labour, excessive bleeding and convulsions (Table A – 6.5 annexed).

**Chart 6.2: Source of advice**



**Chart 6.3: Advice received**



Other than service providers it is envisaged that inter-personal communication among the family members is likely to bring about behavioural changes in a more effective manner. Advice from family members during pregnancy is proved to be crucial in improving health of mother and child. It is observed that for majority of the women mother-in-law in the household advice about taking care of health during pregnancy (73 percent). Advice during pregnancy from any family member is more common in urban blocks as compared to rural and tribal blocks. About the type of advice received, majority of the women were advised about intake of nutritious diet

Excerpts from discussion with women:

*“We were advised by AWW to take supplementary nutrition and IFA tablets on intervals. We were also advised to receive T.T. injections. We were told about safe delivery. Anganwadi beneji suggest to deliver the baby in hospital. If not then at least by a trained dai”.* (Village Khadi, Bhopal)

*‘I have received nutritious food from anganwadi during pregnancy. AWW tells us about taking care of health of mother and the unborn child, and suggested intake of iron tablets.’* (Village Kathbadoda, Ujjain)

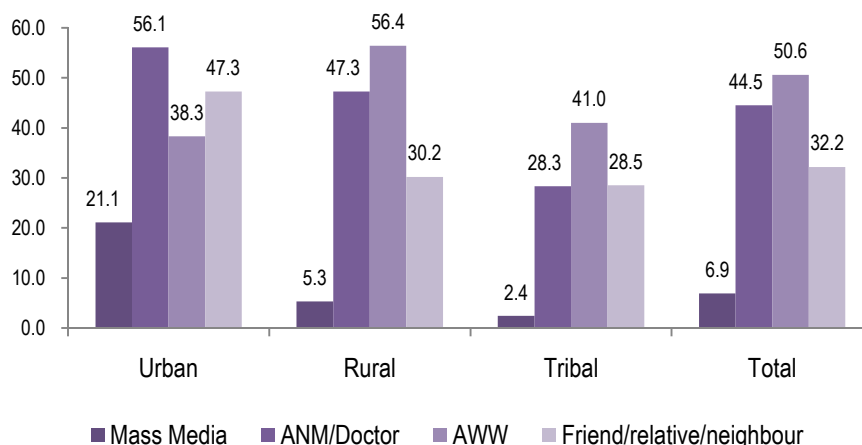


(43.7 percent) and avoiding heavy work (36.7 percent) (Table A – 6.6 annexed). Advice received regarding taking more rest than usual, reducing work load and availing antenatal checkups is considerable low in tribal blocks as compared to urban blocks.

### 6.3 Source of information about antenatal care

Indicators on pregnancy care depend upon the knowledge related to safe motherhood and availability of services. Reproductive and child health programme has been advocating innovative approaches for awareness generation on antenatal care services in the community. It is observed that AWW (50.6 percent) and ANM (44.5 percent) are by far the most common sources of information about antenatal care followed by friends/relatives/neighbours (32.2 percent). Major source of information in rural as well as tribal blocks comes out to be AWW while in urban blocks information on pregnancy care through ANM/doctor is common (Table A – 6.7 annexed). This clearly reflects better availability of AWC services in rural and tribal blocks. On the other hand given the facility set up and living environment in urban blocks accessibility to doctor or ANM is higher.

Chart 6.4: Source of knowledge about pregnancy care



During group discussions beneficiaries shared that the advice on health and nutrition received from anganwadi worker was of great importance. Anganwadi worker use to advise the pregnant women to pay attention on their health. As women now food for two, she asked suggest including all food groups in their diet, maintaining personal hygiene and sanitation in and around the house. Some women also reported that they were informed about safe delivery, and child care. In delivery care women were informed about importance of breast feeding and colostrum feeding for the child, and; keeping the child warm with blanket. A few women knew that a child should be given semi solid only after 6 months. Most of the tribal women were not aware of malnutrition though some of them could associate it with weakness in children, shriveled appearance and weight loss.





## Chapter VII

### Supplementary Nutrition

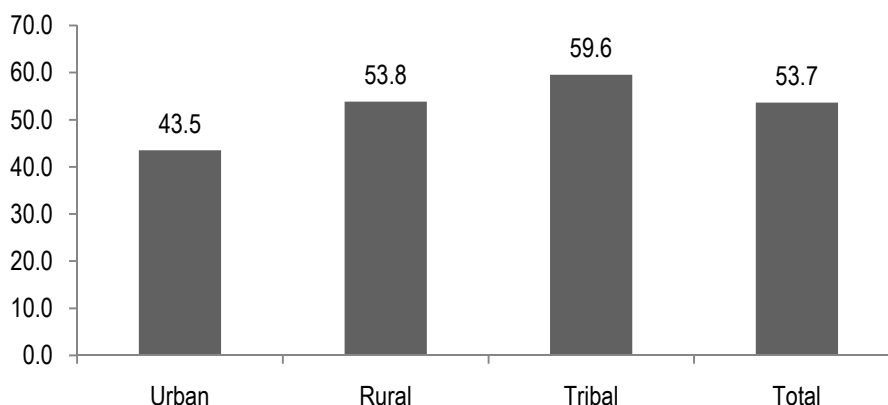
With a view to improve the health and nutritional status of children in the age group of 0-6 years, pregnant women and lactating mothers supplementary nutrition programme has been included as one of the most important components of the ICDS programme. Under the scheme, supplementary nutrition is provided to children and to pregnant / lactating mothers for a period of 300 days a year. The aim is to supplement the daily nutritional intake by 300 calories and 8-10 gms of protein for children; and 500 calories and 20 –25 gms of protein for pregnant and lactating women. ICDS also provide supplementary nutrition to children in the age group of 6 months to 3 years by provisioning of weaning food through anganwadi. As per ICDS classification severely malnourished children in grade III and IV are provided with an additional supplementary nutritional diet.

The present chapter attempts to examine the indicators of supplementary nutrition with a closer look at specific components. As supplementary nutrition services pertain to different beneficiary groups each sub-section tries to capture the results by beneficiary as well as by type of block.

#### 7.1 Coverage and Consumption of Supplementary Food

Overall, the supplementary nutrition has been availed by 53.7 percent of the survey respondents (including all target respondent mothers). Analysis by type of block indicates a higher proportion of receipt of supplementary nutrition in tribal blocks (59.6 percent) in contrast to rural blocks (53.8 percent) and urban blocks (43.5 percent).

Chart 7.1: Overall Receipt of Supplementary Food



Beneficiary wise findings for receipt of supplementary food are as follows:

#### Pregnant Women

Among pregnant women respondents 50.1 percent had received supplementary food from AWC while 37.8 percent did not received the food. Besides 2.4 percent of the respondents mentioned that they have received the food but they did not take, while another 9.7 percent mentioned that they do not need the food from AWC. During the past one



month only 17 percent had received food for more than 21 days in a month while almost 25 percent of the respondents had received food for up to only 7 days in a month.

**Table 7.1: Supplementary nutrition by pregnant women (Weighted percentage)**

SN indicator	Urban	Rural	Tribal	Total
Received food at AWC	39.4	48.9	60.4	50.1
Received food but did not take	3.6	2.3	2.0	2.4
Do not need	25.6	7.4	4.6	9.7
Not receiving supplementary nutrition	31.4	41.4	33.0	37.8
Unweighted N	333	638	211	1182

The phenomenon of not availing food at AWC is more common in urban blocks. Segregated analysis by type of block show that higher proportion of pregnant women respondents in tribal blocks had utilized supplementary food services at AWC followed by rural and urban blocks. Supplementary nutrition received by standard of living index shows that majority of the respondents who did not received supplementary food from anganwadi belong to high standard of living.

**Table 7.2: Supplementary nutrition for pregnant women by standard of living index (Weighted percentage)**

Supplementary nutrition for pregnant women	Standard of living index			
	Low	Medium	High	Total
Received food	54.5	49.5	26.5	50.2
Received but did not take	2.3	2.4	3.5	2.4
Didn't Receive	43.2	48.1	70.0	47.4
Unweighted N	701	284	194	1179

### Lactating Mothers

For mothers of children in the age group of 0-6 month anganwadi provides supplementary nutrition to ensure better health of lactating mothers and the newborn. It is observed from the findings that 45.8 percent of lactating mothers had received food from AWC. As expected a higher proportion of lactating women in tribal blocks had received supplementary food during lactation (56.7 percent) followed by rural (43.3 percent) and urban blocks (33.2 percent).

**Table 7.3: Supplementary Nutrition by lactating mothers (Weighted percentage)**

	Urban	Rural	Tribal	Total
Received food from AWC during lactation	33.2	43.3	56.7	45.8
Do not need	20.2	7.6	3.9	8.6
Not receiving supplementary nutrition	46.6	49.1	39.4	45.6
Unweighted N	294	551	280	1125

Majority of the lactating mothers (i.e. 53.4 percent) had received supplementary food from AWC during the last 7 days. The frequency of getting food from anganwadi is observed to be better in urban and rural blocks as compared to tribal blocks. As evident from the findings 22 percent of the lactating women in urban and rural blocks received





food a day before the survey while only 9.3 percent of lactating women claimed so in tribal blocks. Similarly 66.4 percent of lactating mothers in urban blocks received food from AWC in the last week as compared to 56.5 percent in tribal blocks (Table A – 7.2 annexed). Food from AWC by standard of living index indicates relatively higher utilization of supplementary nutrition service by respondents belonging to low standard of living as compared to those who belong to high standard of living.

**Table 7.4: Supplementary nutrition for lactating mothers by standard of living index (Weighted percentage)**

Supplementary food for lactating women	Standard of living index			
	Low	Medium	High	Total
Receiving food	49.2	42.6	21.5	45.8
Not receiving food	50.8	57.4	78.5	54.2
Unweighted N	738	264	123	1125

### Mothers of children of age 6 month to 3 year

One of the important mandates of an anganwadi centre is to provide supplementary nutrition to children. The present survey findings show that nearly 63 percent of the mothers of children of age 6 month to 3 years were receiving food at AWC. Block-wise analyses indicate higher proportion of beneficiaries receiving food at AWC in rural (64.8 percent) and tribal blocks (63.8 percent) as compared to urban blocks (50.2 percent). Almost 12 percent of the mothers of 6 month to 3 year old child mentioned that they do not need to take food from AWC.

**Table 7.5: Supplementary Nutrition by mother of 6 month to 3 year old child (Weighted percentage)**

Currently receiving food at AWC for child more than 6 months	Urban	Rural	Tribal	Total
Received food at AWC	50.2	64.8	63.8	62.8
Received food but did not take	9.8	6.4	9.6	7.7
Do not need	27.4	10.8	6.2	12.0
Not receiving supplementary nutrition	12.6	18.0	20.4	17.5
Unweighted N	296	603	344	1243

Nearly half of the mothers of children of age 6 month to 3 year mentioned that they had received supplementary food at AWC when the child was less than 6 months old. A higher proportion of mothers with low standard of living index had received supplementary food from anganwadi as compared to those who were from medium or high standard of living households.

**Table 7.6: Supplementary nutrition for mother of 6 month to 3 year old by standard of living index (Weighted percentage)**

Supplementary food for mother of child 6mon to 3 yr	Standard of living index			
	Low	Medium	High	Total
Received food from AWC	67.0	60.6	35.8	62.8
Received but did not take	6.5	10.1	10.9	7.7
Didn't Receive	26.5	29.2	53.4	29.5



Unweighted N	753	318	171	1242
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Beneficiaries in urban and rural block associated problem of malnutrition most prevalent among tribal groups. Women from Singhrauli village identified government's effort to combat malnutrition. During the discussion they said '*jo bhi kuposhit bache hotey hain unhein anganwadi dwara poshan ahar milta hai*'. (Anganwadi provides supplementary nutrition to malnourished children.)

### Mothers of children of age 3 year to 6 year

55 percent of the mothers of children in the age of 3 years to 6 years were currently receiving food at AWC. Block-wise analysis show higher utilization of supplementary food in rural (57.7 percent) and tribal blocks (57.1 percent). 30.5 percent of the respondents are not receiving food at AWC while 12.9 percent of the respondents mentioned that they do not need food from AWC.

**Table 7.7: Supplementary Nutrition by mother of 3 – 6 year old child (Weighted percentage)**

Child currently receiving food at the AWC	Urban	Rural	Tribal	Total
Received food at AWC	51.5	57.7	57.1	55.0
Received, but did not take	0.8	0.9	3.7	1.6
Do not need	20.8	10.1	5.9	12.9
Not receiving supplementary nutrition	26.9	31.3	33.3	30.5
Unweighted N	301	603	340	1244

Beneficiaries from Sonpathar village in Chindwara district reportedly mentioned about supplementary nutrition received from anganwadi.

*'Han humein anganwadi Kendra se posha aahar milta hai jismein humein daliya, panjiri satu milta hai. Anganwadi se milne wala posha aahar achi gunvanta ka hota ha jisse bacche ka swasthya accha rehta hai.'* (We receive supplementary nutrition from anganwadi center. We get daliya, panjiri and satu from anganwadi centre. The food we get from anganwadi center is of nutritive value and is good for health of the child.)

It was found that 61.5 percent mothers of children currently in the age of 3-6 years received supplementary nutrition when the child was between 6 months and 3 years of age (Table A – 7.4 annexed). Among the mothers who are currently receiving supplementary food from the AWC, more than 50 percent belong to low standard of living index.

**Table 7.8: Supplementary nutrition for mother of 3 – 6 year old by standard of living index (Weighted percentage)**

Supplementary food for mother of child 3-6yr	Standard of living index			
	Low	Medium	High	Total
Received food	63.3	49.5	35.3	54.9
Received but did not take	1.8	1.0	2.1	1.6
Didn't Receive	34.9	49.5	62.6	43.5
Unweighted N	801	299	143	1243



### Community's understanding on malnutrition and need for supplementary nutrition

Overall knowledge about malnutrition is low among the community women. However women from urban blocks had better understanding on the issue and could identify causes of malnutrition among children as compared to women from rural and tribal blocks. Symptoms of child malnutrition as identified by most of the women included shrivelled/weak appearance, loss of weight in children, session of illness. Round belly and swelling were also identified as symptoms of malnutrition by few women.

*"We do not know much about malnutrition, but this is a disease child falls weak. He loses his body weight, his stomach size increases. This happens due to less consumption of food".* (Village Muskabad, Raisen district)

Need for intake of supplementary nutrition is highly recognized though the quality of food received from AWC is not much appreciated. The food items from AWC include *daliya* and *panjiri*, *khichdi*, *halwa* and *sattu*. Beneficiaries from Badgaon village in Khandwa district said –

*"Yes, we had received supplementary nutrition from Anganwadi center. We had received daliya, panjiri and satu from anganwadi centre in intervals".* (Village Badgaon, District Khandwa)

### 7.2 Perceptions on quantity and quality of supplementary food received

When asked about the views on quantity of food received more than 90 percent of lactating women believed that the quantity of food received at AWC was sufficient. Comparatively a lower proportion of pregnant women (77.5 percent), mothers of children of age 6 months to 3 years (77.5 percent) and mothers of children 3 to 6 year (65 percent) were satisfied with the quantity of food received at AWC as supplementary nutrition. (Table-A 7.5 annexed).

Further nearly 71.3 percent of pregnant women and 83.3 percent of lactating mothers revealed that they share the take home food received from AWC with other members of the family. Block wise distribution by amount of food shared reveals that 67 percent of the pregnant women in rural blocks share almost half of the food received as compared to nearly 51 percent of pregnant women in tribal blocks. Findings for lactating women show that 44 percent of respondents from rural blocks shared less than 1/4<sup>th</sup> of the food received from AWC, followed by respondents in tribal blocks (42.9 percent). (Table -A 7.6 annexed).

Regarding quality of food received more than 51 percent of pregnant women respondents perceive that food provided at AWC is of good quality. Considerably higher proportion of pregnant women respondents in tribal blocks (65.3 percent) were of the same view as compared to rural (46.3 percent) and urban blocks (48.9 percent). Across the beneficiary groups 47.6 percent of lactating women respondents, 42.3 percent of mothers of children aged 6 month to 3 years and 37.4 percent of mothers of children of 3-6 years age rate quality of food as good (Table A – 7.7 annexed).

### 7.3 Reasons for not receiving supplementary food from AWC

Among those who have not received supplementary food at AWC, 20.5 percent of the pregnant women respondents mentioned that they are not aware of service been available at the AWC; while 20.2 percent of the pregnant women mentioned that nobody is available in their house to go and take food at AWC.



Majority of the lactating mothers in tribal blocks (41.6 percent) stated that they are not aware of service of supplementary food at AWC. Highest proportion lactating women respondents who belong to urban blocks mentioned that they are not aware that they are eligible. Almost 23 percent of lactating women in tribal blocks and 21 percent of lactating women in rural blocks cited that AWW does not give food to them.

**Table 7.9 (a): Reasons for not receiving supplementary food from AWC (Weighted percentage)**

	Pregnant Women				Lactating Mother			
	Urban	Rural	Tribal	Total	Urban	Rural	Tribal	Total
Not aware of the service	17.6	17.9	33.4	20.5	35	22.6	41.6	29.3
Not aware that I am eligible	14.8	7.5	15.0	10.0	18.8	14.9	22.7	17.4
Supplementary food not available at AWC	3.6	7.4	0.7	5.6	0.8	2.1	9.1	3.6
Quality of food is not good	2.8	1.9	7.0	2.9	2.2	2.6	6.7	3.5
Family members oppose	4.2	3.2	2.7	3.3	4.2	2.4	2.6	2.8
AWC is far off	7.6	14.4	18	13.8	7.9	17.8	21.6	17.1
AWW does not give	8.0	8.4	18.4	10.0	9.0	21.0	22.7	19.4
AWW don't tell when the food is distributed	1.4	10.7	0.9	7.4	1.7	3.8	4.6	3.6
Nobody is there to go and take the food	9.5	24.9	12.5	20.2	10.4	7.6	10.0	8.7
Unweighted N	198	307	88	593	156	234	106	496

\* Percentages may not add up to 100 due to multiple responses

Majority (38.6 percent) of mothers having children of age 6 month to 3 years in tribal blocks feel that AWC is far off. In rural blocks mothers most commonly (27.8 percent) cited that AWW refuses to give them food at AWC.

Findings among mothers of children 3-6 years show that lack of awareness of supplementary food services is more common in rural and tribal blocks (20.2 percent and 24.6 percent, respectively). This reasons was found to be most common in urban blocks (42.1 percent) followed by rural blocks (23.6 percent). Among the other most frequently mentioned reason in tribal blocks, 24.5 percent) mothers mentioned that there is no one at home who can go and take food from AWC.

**Table 7.9 (b): Reasons for not receiving supplementary food from AWC (Weighted percentage)**

	Mother of 6 mon-3yr				Mother of 3-6yr			
	Urban	Rural	Tribal	Total	Urban	Rural	Tribal	Total
Not aware of the service	17.0	15.1	19.5	16.7	15.1	20.2	24.6	19.1
Not aware that I am eligible	5.1	8.5	10.1	8.4	7.1	5.1	8.8	6.9
Supplementary food not available at AWC	1.6	3.5	3.5	3.2	2.3	4.4	0	2.4
Quality of food is not good	6.2	4.6	3.6	4.6	9.9	9.4	6.8	4.7
Family members oppose	7.7	2.9	0.7	3.1	3.3	1.2	1.6	2.2
AWC is far off	5.6	14	38.6	19.6	6.4	16.9	16.8	12.3
AWW does not give	10.3	27.8	12.4	20.7	12.4	14.4	19.6	14.9
AWW don't tell when the food is distributed	0	1.7	2.5	1.3	2.6	6.3	3.7	4



Nobody is there to go and take the food	3	4.7	13.7	7	13.3	11.6	24.5	15.6
Unweighted N	142	207	126	475	149	257	139	545

\* Percentages may not add up to 100 due to multiple responses

It is inferred from the findings that supplementary nutrition in ICDS serves as a stimulating factor for the involvement of community members in the process of nutrition planning and intervention. Supplementary nutrition component of the programme has become more effective by making people aware about the facilities of the programme and motivating them to participate in the activities. Acceptability of supplementary nutrition is also quite high though very small proportions of beneficiaries reportedly do not accept food items available at AWC, thus indicating further need for more intense efforts for sensitization of community. Supplementary food coverage, including the regularity and attendance at NHED is largely influenced by the regular and adequate supply of food commodities. Feedback from the community also reveals issues in quality of food available at AWC while some of the women commented on the type of food distributed by AWC. This has been more commonly observed in urban blocks and also rural blocks however in tribal blocks non- acceptance of supplementary food from AWC is not majorly reported.

*'Anganwadi se milne wala khana accha nahin lagta. Khane hamesha ek hi jaisa milta hai aur kuch swad bhi nahin hota. Anaganwadi se alag tarah ka khana milna chahiye jo poshan aahar bhi ho aur khane mein bhi accha lage'* (village Barodia, district Sehore)

Instances of interrupted supply of food and lack of variety reportedly result in poor attendance and drop-outs. The results on coverage of supplementary nutrition evidence the need for more focused efforts for sensitization of community in order to inculcate their belongingness to the services at AWC.



## Chapter VIII

### Delivery and New Born Care

The anganwadi is the focal point for delivery of the package of services to mothers and children. Activities performed by AWW involve regular contacts with mothers during pregnancy and after delivery. Besides antenatal care, advice on delivery care and post-delivery care is also one of the important components of service delivery. The present chapter intends to provide information on knowledge and practices related to safe delivery and new born care.

#### 8.1 Advice for Delivery Care

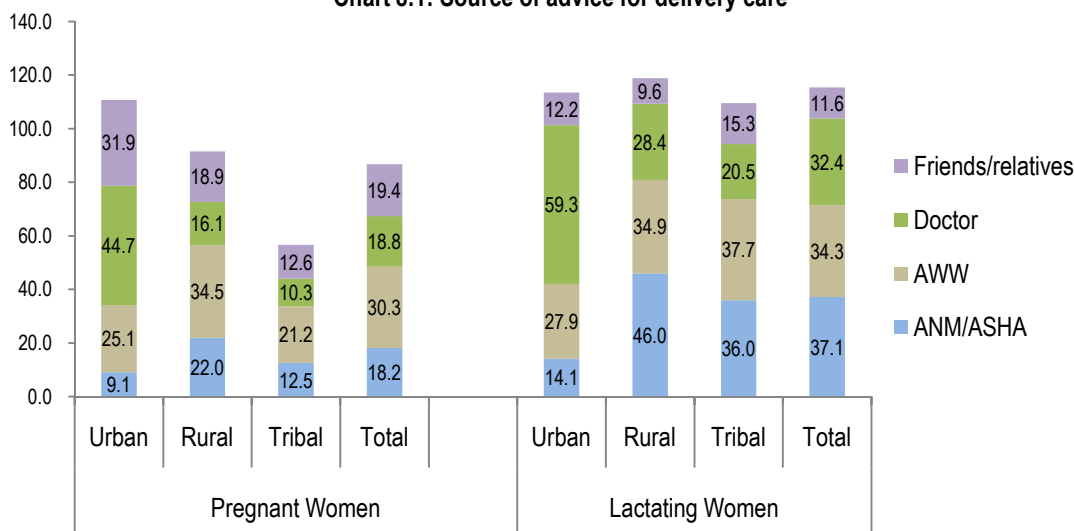
Pregnant women and lactating mothers were asked about information received during pregnancy on hygiene and other preparations for delivery care. Almost 56 percent of pregnant women mentioned that they have received advice related to preparations for delivery while 42.5 percent of lactating mothers said so. Segregated analysis at the level of block show that majority i.e. nearly three fourth (73.3 percent) of the pregnant women respondents and 61.4 percent of lactating mothers in urban blocks had received advice related to delivery care at the time of pregnancy, followed by rural (57.9 percent and 40.3 percent, respectively) and tribal blocks (42 percent and 38.2 percent, respectively) (Table A – 8.1 annexed). Among the pregnant women AWW remained the most common source of advice while in case of lactating women for majority of the respondents ANM/ASHA were the prime source of information followed by AWW and doctor. (Table-A 8.2 annexed). Block differential clearly indicate predominance of seeking advice from doctor in urban blocks.

The advice related to delivery care mainly involved information on institutions/hospitals for delivery, as mentioned by nearly 53 percent of the pregnant women and 89 percent of lactating mothers. Almost 31 percent of pregnant mothers and 35 percent of lactating mothers were suggested to decide about the person who would accompany at the time of delivery (Table A – 8.3 annexed). With regard to block level analysis for pregnant women it is observed that high proportion of respondents in urban and rural blocks had received any advice related to delivery care, while in case of lactating mothers the proportion of respondents is almost equally high for tribal blocks as rural blocks.

*Anganwadi karyakarta aur ANM behenji ne humein surakshit prasav ki jankari di. Prasav haspatal mein hone se maa aur baccha dono surakshit rehte hai. Parantu hum log hamesha haspatal mein nahin ja pate. To hum gaon mein se hi kisi ko bula lete hain. ANM behenji ko pata chale to wo bhi aa jati hain. (Village Nandora, district Chindwara)*



Chart 8.1: Source of advice for delivery care



### 8.2 Place of delivery

Among the pregnant women respondents only 5.7 percent of the respondents were planning for home delivery while majority i.e. 83 percent of the respondents had decided upon PHC/CHC/hospital for delivery. Block level analysis indicates comparatively higher proportion of pregnant women respondents from rural (87.1 percent) and urban blocks (76.1 percent) planning for institutional delivery as compared to tribal blocks (74.9 percent). (Table-A 8.4 annexed). Those pregnant women who were thinking of home delivery nearly 40 percent had been advised for precautions that need to be taken for clean and safe delivery at home.

Majority of lactating women and mothers of children 6 month to 3 years delivered their last child at PHC/government hospital (75.8 percent and 62.3 percent, respectively) while in case of mothers of children 3 year to 6 year majority i.e. 54 percent of mothers delivered their index child at home (Table A – 8.7 annexed). Home deliveries were found to be more common in tribal blocks as compared to rural and urban blocks. On the other hand institutional deliveries at PHC or government hospital is more common in urban and rural blocks.

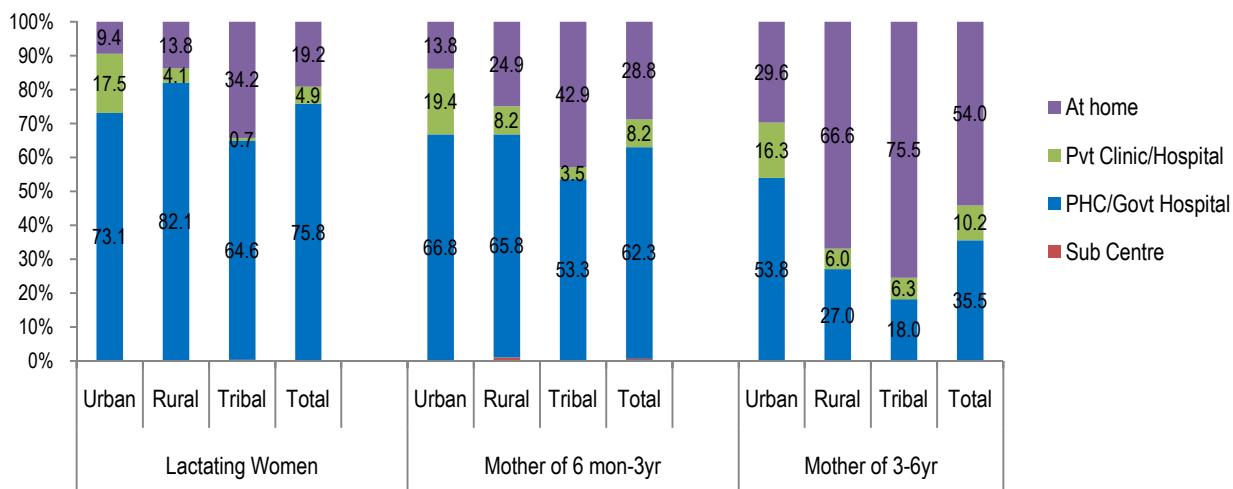
**Janani Suraksha Yojana (JSY)** – an incentive for people to opt for deliveries at any health care institution (*Enhanced awareness on Social Entitlements*). Majority of deliveries are now being planned and conducted in a hospital / health care centres.

“Our community has become aware that it is important to take care of health and hygiene of mother and child during delivery. ANM behenji and AWW suggests all pregnant women to deliver in a hospital as it doesn’t cost anything. Usually, if condition of pregnant women is good, we quickly arrange transport and go to hospital for delivery.”





Chart 8.2: Place of delivery



The gradual increase in proportion of institutional deliveries over the period of time can be attributed to benefits under Janani Suraksha Yojana (JSY) which directly promotes institutional deliveries through cash assistance to the beneficiaries. While the findings on JSY indicates low awareness in contrast to high proportion of institutional deliveries, it can be inferred that community is not aware of the scheme by its names however they are utilizing and receiving the benefits under the scheme. Increase in institutional deliveries specifically in government hospital/ primary health center indicates increased access to government set up as compared to private institutions.

Chart 8.2a: Place of Delivery – Institutional v/s Home

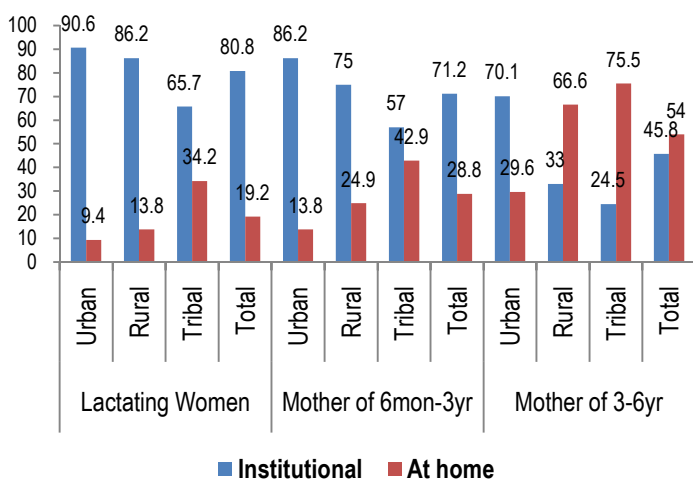
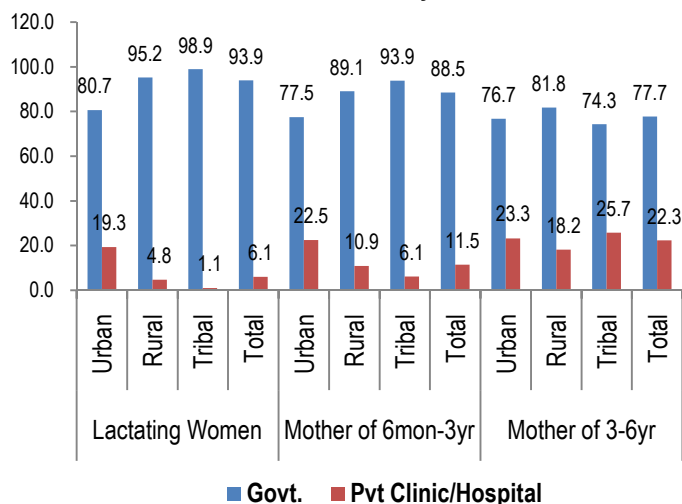


Chart 8.2b: Place of Delivery – Govt. v/s Private

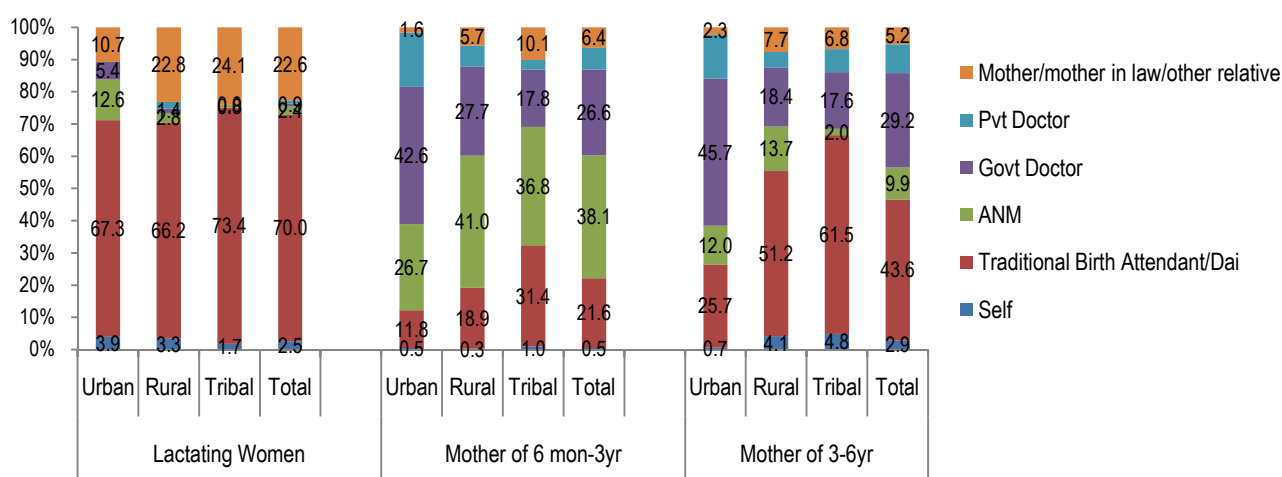




### 8.3 Assistance during Home Delivery

Among those respondents who had home delivery (refer to chart 8.2), majority of the deliveries were assisted by traditional birth attendant (TBA), as can be observed in the chart below. In case of home delivery among lactating women, the proportion of delivery by TBA was higher (70 percent) with marginal differences across the type of blocks. However the proportion of TBA assisted deliveries across the years (as indicated by responses by mother of 6 month to 3 year old child and mother of 3-6 year old child) show fluctuating trend, wherein a considerable proportion of deliveries were assisted by a technical expert i.e. ANM and doctor in case of children who are 6 month to 3 year old.

Chart 8.3: Assistance during home delivery

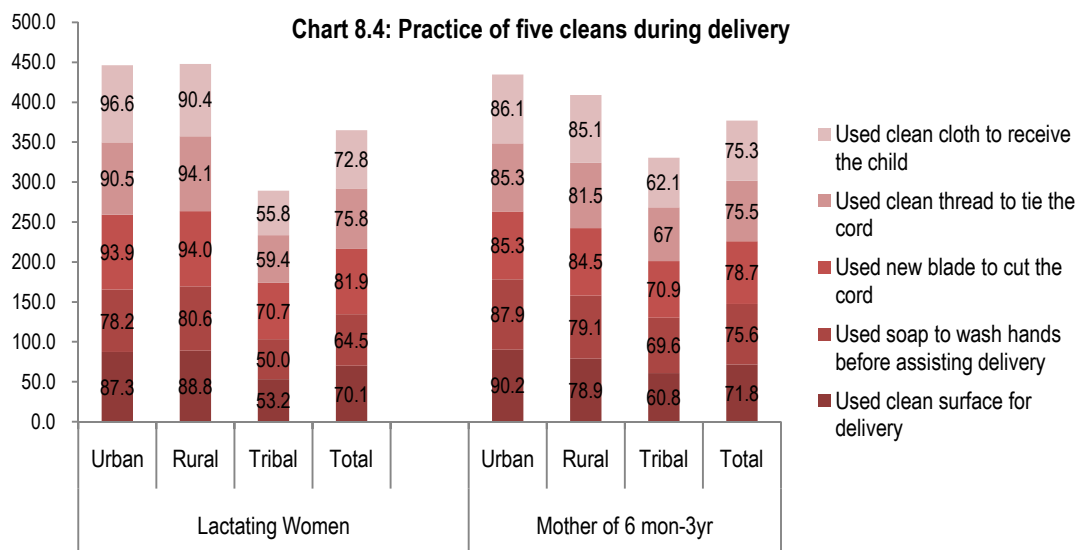


With regard to pregnant women, those women beneficiaries who had planned for home delivery nearly 68 percent had thought of calling traditional birth attendant for assisting the birth.

### 8.4 Safe delivery practices

For home deliveries beneficiaries were counseled on safe delivery practices. Most of the respondents who had home deliveries could mention about practice of five cleans followed at the time of delivery. Among the lactating women respondents it was found that new blade was used in nearly 82 percent of the deliveries. Followed by this 75.8 percent of lactating women mentioned that clean thread was used to tie the umbilical cord while 72.8 percent had used clean cloth to receive the newborn. Nearly 70 percent of deliveries were conducted on clean surface. Block-wise distribution of results indicate high proportion of respondents in urban and rural blocks adopting safe delivery practices as compared to respondents in tribal blocks.





Among mother of children of age 6 month to 3 years nearly three fourth of mothers mentioned that they had used five cleans during their last delivery. Around 78 percent of the mothers had mentioned that new blade was used to cut the cord at the time of delivery while 75 percent had used clean thread and clean cloth to receive the baby. Block-wise distribution show considerable differential with respect to use of clean cloth wherein use of clean cloth to receive the baby is higher in urban blocks as compared to tribal blocks.

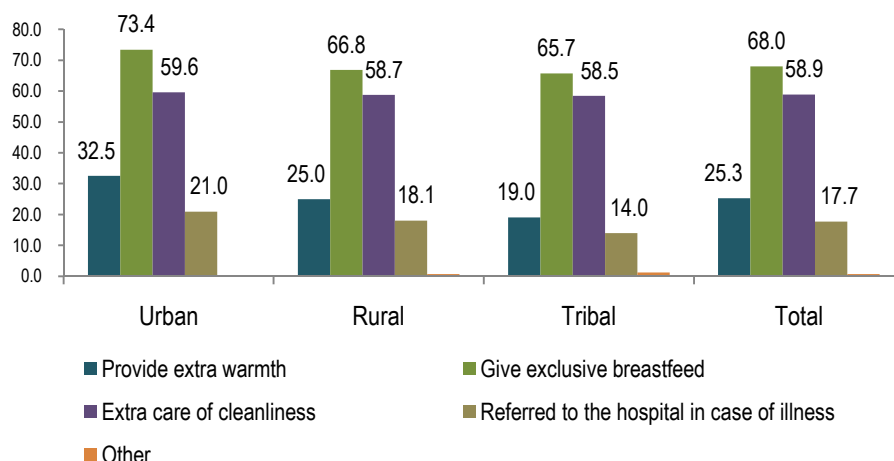
### 8.5 Postnatal care

Postnatal care soon after the delivery help safeguard the health of the mother and the newborn. Postnatal checkups intend to prevent complications of the postnatal period and counsel mothers to take care of the newborn. Receipt of postnatal check up is closely related with the place of delivery. As established from various studies limited post-natal care is possible for mothers specifically in rural and tribal blocks who deliver at home.

The present study shows that nearly 39 percent of lactating mothers had received advice on newborn care from health service provider after delivery. Most commonly the advice was received from ANM (17.8 percent) and AWW (11.6 percent). However across the block comparison indicates that advice from doctor is more common in urban blocks while ANM and AWW were the main source of advice in rural blocks. (Table-A 8.12 annexed). According to the lactating mother respondents nearly 68 percent of mothers were advised about exclusive breastfeeding while nearly 59 percent were told about taking extra care of cleanliness for the newborn. Around one fourth of mothers received advice about providing extra warmth to the newborn (Table A – 8.13 annexed). Segregated analysis by type of block indicates a higher proportion of mothers in urban blocks received advice on newborn care followed by mothers in rural blocks.



Chart 8.5: Advice received for postnatal care



In order to protect the child during the most crucial days i.e. first two weeks of birth, most of the mothers (60.1 percent) mentioned that care was taken to keep the baby wrapped warmly all the time (Table A – 8.14 annexed). Postnatal care practices were prevalent in the urban blocks in contrast to rural and tribal blocks wherein higher proportion of mothers adopted best practices to protect the child in first 15 days after birth.

With respect to advice received related to breastfeeding, of those who received any advice on breastfeeding practices more than half of the lactating mothers (53.7 percent) were advised to breastfeed immediately after birth while only 20.2 percent were told to feed the colostrum. Nearly 47 percent of the mothers mentioned that they were advised to feed breast milk exclusively for initial 6 months. It is seen that interaction with regard to breastfeeding behaviour is better in urban and rural blocks as compared to tribal blocks.

Table 8.1: Advice received regarding breastfeeding to newborn (Weighted percentage)

Advice received	Urban	Rural	Tribal	Total
Breastfeed immediately after birth	60.8	58.7	38.5	53.7
Breastfeed within 1 hr	36.9	33.1	32.3	33.8
Breastfeed after 3 days	0.0	1.0	3.2	1.4
Feed colostrums/first milk to the child	24.8	22.3	12.2	20.2
Do not discard/squeeze out colostrums	3.7	0.0	0.0	0.9
Breastfeed on demand	9.0	22.2	19.7	18.3
Breastfeed day and night	4.6	18.1	0.0	9.9
Give only breast milk for the first 6 months	45.2	49.5	43.8	46.9
Unweighted N	69	65	34	168

As a component of postnatal care, more than 70 percent of the mothers mentioned that newborn was weighed after birth. Weighing of children after birth was found to be more common in urban blocks (84 percent) as compared to rural (70 percent) and tribal blocks (64.3 percent). Nearly 55 percent of the children were weighed on the same day of birth while 45 percent were weighed after the day of birth. The practice of weighing children on the day of birth is more common in urban blocks while in tribal blocks most of the children were weighed within first day of birth.



Table 8.2: Practice of weighing of newborn after birth (Weighted percentage)

Weighing of newborn	Urban	Rural	Tribal	Total
Child weighed after birth	84.0	70.0	64.3	70.2
Unweighted N	294	551	280	1,125
<b>Number of days after birth when first weighed</b>				
On the day of birth	60.1	58.4	46.4	55.5
After day of birth	39.9	41.6	53.6	44.6
Unweighted N	242	392	184	818

Institutional deliveries have been prominent among the more recent births, as depicted by results of lactating women and mother of child 6 month to 3 years. Increase in institutional delivery was found to be attributed to increase in awareness among community members regarding importance of health care and their entitlements accompanied by increase in health services in the community. It is inferred here that access to services and levels of awareness on delivery care and newborn care is taking a boom owing to services under different schemes of ICDS. The facilities of the programme motivate community members to participate in the activities. However, it may be said that anganwadi workers were trying hard at many places to deliver services despite all sorts of problems, gap remains in the services related to post natal care. Regular reorientation, replenishments and guided supervision would go long way in delivery of better results.

## Chapter IX

# Infant and Child Feeding Practices

Infant and child feeding behaviours are known to have direct impact on health of child. Proper infant feeding from the time of birth is important for physical and mental development of children. Universal coverage of breastfeeding and appropriate complementary feeding can prevent up to 13 percent and six percent respectively, of all under-five deaths in high under-five mortality countries (Jones et al, 2003)<sup>5</sup>. To address the issues of infant and child behaviour and practices health service providers focus on providing timely advice during the critical periods before and after six months of age. As a part of ICDS programme mothers are particularly encouraged for early initiation of breastfeeding and avoidance of prelacteals; to adopt exclusive breastfeeding until the age of six months; and initiation of complementary feeding at six months.

### 9.1 Breastfeeding Practices

Findings from the present study show that breastfeeding is almost universal across the beneficiary groups where on an average 99.5 percent of respondents had ever breastfed their last child. While 99.6 percent of lactating mothers were breastfeeding their child at the time of survey, almost 86 percent of mothers of children 6 month to 3 years of age were currently breastfeeding their child. Among mothers of children of age 3-6 years only six percent of the respondents were currently breastfeeding their child. Maximum proportion of mothers of 3-6 year child who were currently breastfeeding their child belonged to tribal blocks (Table A – 9.1 annexed).

The Government of India recommends that initiation of breastfeeding should begin immediately after childbirth, preferably within one hour (Ministry of Women and Child Development, 2006)<sup>6</sup>. As reported by NFHS-III (2005-06) breastfeeding is nearly universal in India, very few children are put to the breast immediately after birth. Conforming to the state report, while breastfeeding is found to be nearly universal, very few children are put to the breast immediately after birth.

The first breast milk (colostrum) is highly nutritious and has antibodies that protect the newborn from diseases. Late initiation of breastfeeding not only deprives the child of valuable colostrum, but becomes a reason for introduction of prelacteal feeds like glucose water, honey, *ghutti*, animal milk, or powdered milk. More than 74 percent of lactating women, 79.6 percent of mothers of children of age 6 month to 3 years and 71.8 percent of mothers of children of age 3-6 years reported that they had fed first milk (colostrum) to the child after birth.

<sup>5</sup> Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS, (2003). How many deaths can we prevent this year? *The Lancet*; 362 (9377): 65-71.

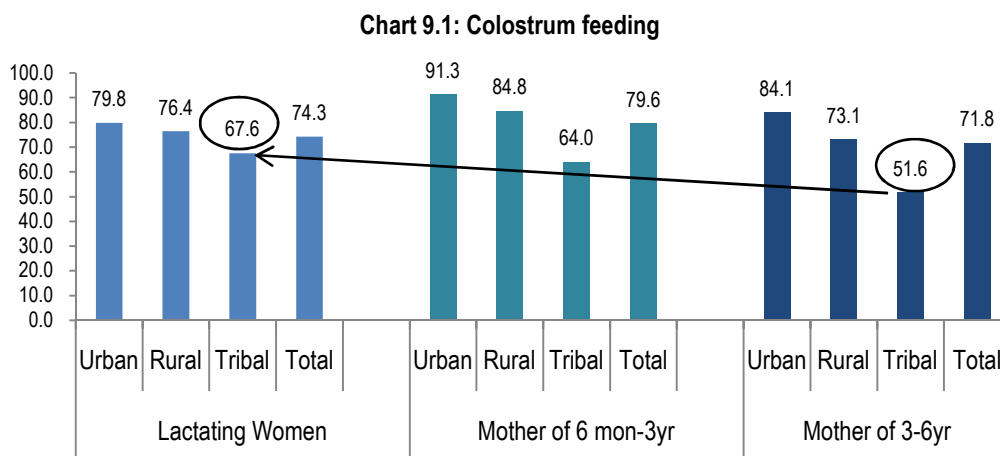
<sup>6</sup> Ministry of Women and Child Development (MOWCD). 2006. *National guidelines on infant and young child feeding*. New Delhi: MOWCD (Food and Nutrition Board), Government of India.



Community women stressed on the adoption of colostrums (yellow milk) feeding practices. Earlier a ghutti or honey was given to newborn before initiation of breastfeeding, but increasingly now colostrum feeding is becoming a regular practice in community. Community is evidently guided by health care providers on breastfeeding practices.

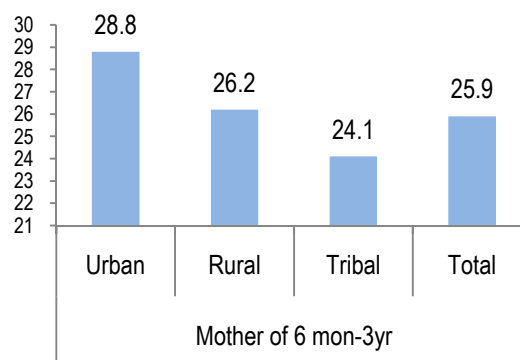
*“The first ...thick ... yellow milk of mother is given to newborn. Earlier, we used to discard but anganwadi karyakarta and ANM behenji told us that this first milk of a mother is very good for a newborn baby. Now, we ensure that it is given to every child. In this way baby also start taking breast milk immediately after birth.” (Village Nandora, Chindwara district)*

Block analysis shows that feeding of colostrum is most prevalent in urban blocks followed by rural and tribal blocks. Nearly one fourth (25.6 percent) of lactating mothers gave their last-born child something to drink other than breast milk. Such practice is found to be more common in tribal blocks as compared to urban (25.7 percent) and rural (22.6 percent) blocks. (Refer table-A 9.1 annexed).



The WHO recommends exclusive breastfeeding for first 6 months of life which means the infant only receives breast milk without any additional food or drink, not even water. The present finding shows that a total of nearly 26 percent respondent mothers of children in the age of 6 month to 3 years had exclusively breastfed their index child for first 6 months. The figure is higher than the NFHS state estimate of 22%. Block differentials show a higher proportion of mothers in urban blocks (28.8 percent) exclusively breastfeeding for first six months as compared to rural (26.2 percent) and tribal blocks (24.1 percent).

**Chart 9.2 Exclusive breastfeeding in first 6 months**



***It is important to note here that a tribal block does not exclusively belong to only tribal population. The tribal areas are also inhabited by non tribal populations. Thus the results depicted here are representative of tribal blocks and not tribal population.***



## 9.2 Age at initiation of complementary feeds

When breast milk is no longer enough to meet the nutritional needs of the infant, complementary food should be added to the diet of the child. The purpose of complementary feeding is to complement the breast milk and sustain the growth and development of the child. As recommended by Ministry of Women and Child Development, 2006, in addition to the breast milk complementary feeding should start at the age of 6 months.

Findings of the present study show that almost 74 percent of children of age 6 month to 3 year were given any feed other than the breast milk in first 6 months while nearly 38 percent of children who are currently under 6 months of age were given complementary feed. This clearly indicates the change in practices over time as higher proportion of mothers are now practicing exclusive breastfeeding and giving complementary feeding after 6 months. Block differentials show that complementary feeding to children before completing 6 months is more common in tribal blocks where 43.8 percent and 75.9 percent of children in the age groups of 0-6 months and 6 month to 3 years, respectively, were given complementary feeds.

**Table 9.1: Complementary feeding practices (Weighted percentage)**

Complementary feeding	Lactating women				Mother of children 6 month to 3 year			
	Urban	Rural	Tribal	Total	Urban	Rural	Tribal	Total
Given feed other than breast milk in first 6 months	35.4	36.5	43.8	38.4	71.2	73.8	75.9	74.1
Age at which started giving any liquids								
0-3 months	62.0	77.4	81.2	76.7	55.7	65.6	46.4	58.8
4-6 months	38.0	22.6	18.8	23.3	40.0	32	47.3	37.4
7-9 months	NA	NA	NA	NA	3.5	1.6	4.4	2.6
10-12 months	NA	NA	NA	NA	0.4	0.4	0.3	0.4
Not yet given	NA	NA	NA	NA	0	0	0.7	0.2
Don't know	NA	NA	NA	NA	0.4	0.5	0.8	0.6
Unweighted N	93	207	118	418	215	452	255	922

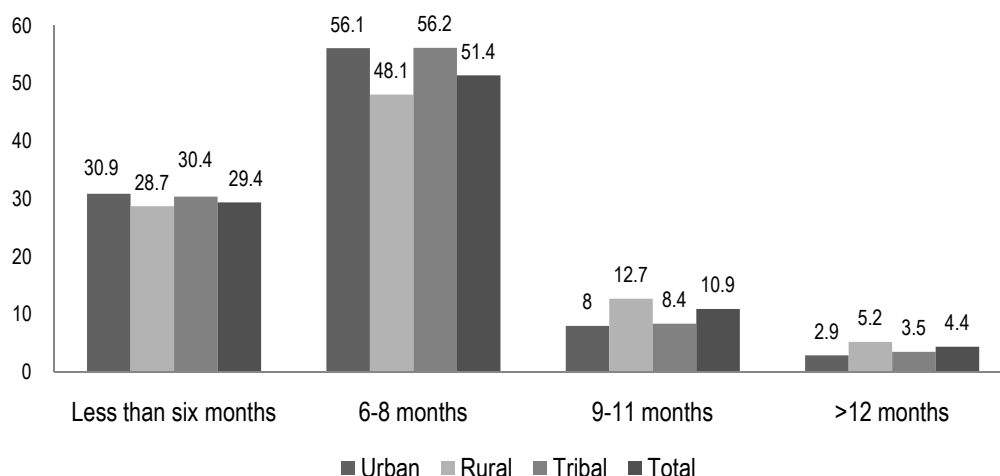
\*NA = Not applicable

Initiation of complementary feeding by age of child indicates that almost 77 percent of children under 6 months and 59 percent of children between 6 month to 3 year were given complementary feeds before completing 3 months. About 44 percent of lactating women mentioned that they had started giving feeds other than breast milk within 1-2 months of birth. Early initiation of complementary feeding in addition to breast milk is common in tribal blocks as compared to rural and urban blocks.

WHO recommends the introduction of solid or semi-solid food to infants around the age of six months because by that age breast milk by itself is no longer sufficient to maintain a child's optimal growth. Among the mothers of children 6 month to 3 years 51.4 percent mothers had started giving any semi-solid or solid food at the age of 6-8 months while 29.4 percent introduced solid or semi-solid food at the age of less than 6 months.



**Chart 9.3: Age at initiation of semi-solids or solid food**



### 9.3 Type of complementary feeds given

During the first six months most of the children (who are currently in the age group of 6 months to 3 years) were given plain water (74.5 percent) in addition to breast milk. While 23 percent children were given honey/jaggery/sugar, around 16 percent of children were fed with animal milk. It is observed that feeding of animal milk or powdered milk is more common in urban blocks as compared to rural and tribal blocks.

**Table 9.2: Type of complementary feeds given within first 6 months (Weighted percentage)**

Feeds given in addition to breast milk during the first 6 months	Urban	Rural	Tribal	Total
Plain water	61.6	81.3	65.9	74.5
Boiled/warm water	55.2	34.2	22.1	33.0
Honey/Jaggery/Sugar	18.4	17.1	35.3	22.6
Animal milk	21.8	15.7	14.1	15.9
Juice	5.7	1.1	2.8	2.1
Jeera/Pudina/Other Herb Brew	7.6	5.7	14.9	8.6
Tea or coffee	4.2	7.1	5.4	6.3
Powdered milk	7.2	2.6	3.1	3.3
Semi-solid/Other solid food	25.0	17.1	30.6	22.0
Any other liquid/semi solid food	5.1	3.9	3.0	3.8
Unweighted N	215	452	255	922

Findings with respect to child feeding practices in last 24 hours reveal that nearly 70 percent of children under 6 month of age were given plain water while almost 24 percent were fed with animal milk along with the breast milk. Block wise comparison shows that feeding of plain water is more common in tribal blocks (69.7 percent) while feeding of animal milk is more prevalent in urban blocks (26.2 percent) as compared to tribal (23.9 percent) and rural

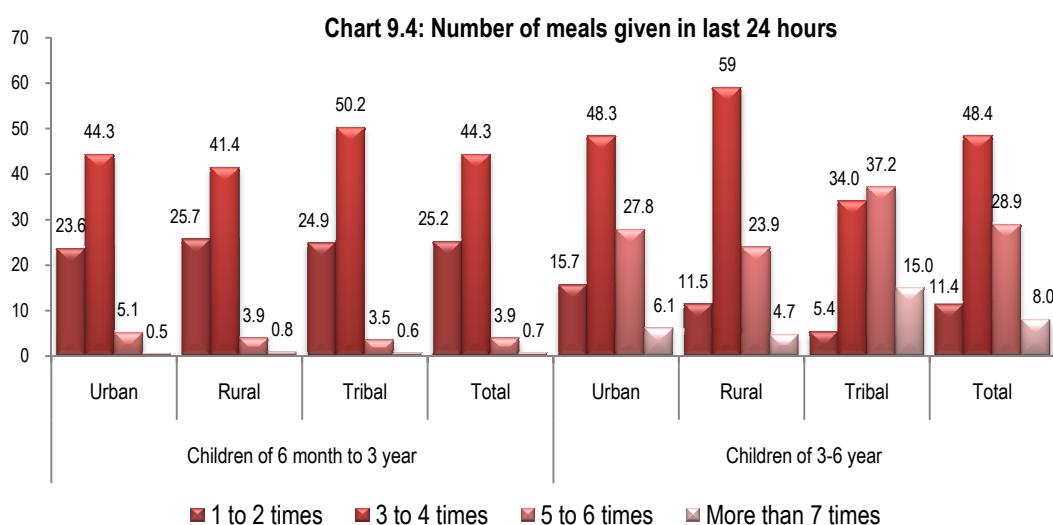




(23.1 percent) blocks. The most common type of solid or semi-solid food given to children of 6 months to 3 years were food made from grains including bread or chapatti (92.5 percent), rice or any other grain (72.9 percent), and biscuit (43.3 percent). Very few children consumed fruits (9.1 percent) and vegetables (17.1 percent) that are rich in vitamin A. Milk products (16 percent) are even less commonly given to young children. However among the children of age 3- 6years feeding of biscuits (67 percent), and milk/milk products like cheese and yogurt (34.2 percent) is more common. Overall comparison across the blocks shows better consumption of complementary food in urban blocks.

### 9.4 Frequency and quantity of feeds

Appropriate child feeding practices can be assessed on the basis of number of times children were fed during the day and quantity of feeds. During the last 24 hours majority of the children were fed 3 to 4 times with either liquid or semi-solid diet.



It is recommended that Infants aged 6-8 months should be fed at least twice (2-3 times) a day and children aged 9-23 months should be fed at least three times (3-4 times) a day along with the breast feed (WHO, 2003). The majority of children of age 9-23 months were reported to have been fed 1-2 times in last 24 hours. The frequency of number of meals increased as the age of child increased.

**Table 9.3: Number of meals given in last 24 hours by age of child (Weighted percentage)**

Age of child	Urban			Rural			Tribal			Total		
	1-2 times	3-4 times	5-6 times	1-2 times	3-4 times	5-6 times	1-2 times	3-4 times	5-6 times	1-2 times	3-4 times	5-6 times
6-8 months	7.8	1.3	6.3	5.3	0.8	0.0	9.0	2.9	8.7	6.7	1.6	3.2
9-23 months	77.9	45.6	44.7	66.1	49.3	47.0	70.4	50.9	63.3	68.6	49.4	50.8
24-36 months	14.3	53.1	48.9	28.6	49.9	53.0	20.6	46.1	28.0	24.7	49.0	46.0
Unweighted N	65	124	18	147	234	26	82	159	10	294	517	54



The WHO recommends certain amounts of complementary foods to be fed daily to breastfeeding infants and young children over 6 months of age expressed in terms of age-specific energy intake recommendations. In the present study information on dietary intake is gathered in amount of meal consumed at one time. With respect to semi-solid food and solid food majority of the children were fed a meal of less than 50 grams at one time.

**Table 9.4: Quantity of semi-solid and solid food given (Weighted percentage)**

Quantity of meal given at one time	Children of 6 month to 3 year				Children of 3-6 year			
	Urban	Rural	Tribal	Total	Urban	Rural	Tribal	Total
<b>Semi-solid food</b>								
Less than 50grams	91.0	90.2	89.7	90.2	81.1	79.5	74.9	78.8
50 to 100 grams	8.3	8.5	10.3	9.0	16.2	18.7	22.9	18.9
More than 100 grams	0.8	1.3	0.0	0.9	2.7	1.9	2.2	2.3
Unweighted N	166	325	177	668	132	230	206	574
<b>Solid food</b>								
Less than 50grams	70.3	82.8	68.0	77.1	47.3	43.2	53.1	47.7
50 to 100 grams	21.0	13.1	16.2	14.9	22.0	18.1	27.9	21.8
More than 100 grams	8.7	4.1	15.8	8.0	30.6	38.8	19.0	30.5
Unweighted N	166	325	177	668	271	564	304	1159



## Chapter X

### Child Health

To address the issue of child health and mortality a number of vertical programmes have been initiated in India. The Ministry of Health and Family Welfare has sponsored various projects under the Maternal and Child Health Programme including Universal Immunization Programme, and the Maternal and Child Health Supplemental Programme (Ministry of Health and Family Welfare, 1992). Later in 1996 the Government of India followed up the International recommendation on Reproductive and Child Health (RCH) as a National Programme. RCH programme integrates all the related programmes and aims to bring all RCH services easily available for the community. The present chapter highlights the status of child health including immunization coverage and childhood illnesses in the survey blocks.

#### 10.1 Child Immunization

Immunization programmes aim to reduce mortality and morbidity due to vaccine preventable diseases. Under the ICDS programme, anganwadi centres provide children with health, nutrition, and education services from birth to six years of age. Ensuring complete immunization to pregnant women and children is one of the crucial components of ICDS package of services.

##### 10.1.1 Vaccination

To record the details of immunization respondents were first asked whether they had a vaccination card for the last born child. If a card was available, the interviewer carefully copied the date of vaccination received from the card. If the mother could not show a vaccination card, she was asked whether the child had received any vaccinations. If any vaccinations had been received, the mother was asked about each vaccination verbally without recording of dates. As per the survey, 84.2 percent of mothers of children 12-23 month child had vaccination card. Possession of vaccination card of is more common in urban blocks as compared to rural and tribal blocks.

The table below gives the percentages of children (12-23 month) who received specific vaccinations. More than 96 percent children between 12-23 months of age were vaccinated with BCG. A visible decline in polio coverage has been seen with each polio dose i.e. polio-1 to polio-3. However the coverage of polio 0 dose is much lower as compared to polio 1, 2 and 3.

Relatively, DPT vaccination coverage did not show as sharp a decline as polio vaccination. However coverage of DPT in tribal blocks is considerably low as against rural and urban blocks. The percentage of DPT vaccination between rural and urban locations was found to be more or less similar. Overall, the percentage coverage of children vaccinated against measles was recorded as 84 percent.



Table 10.1: Child immunization (Weighted percentage)

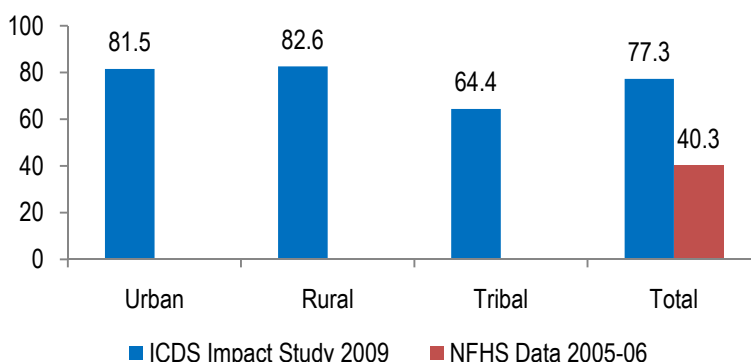
	Children aged 12-23 months			
	Urban	Rural	Tribal	Total
Have vaccination card	96.1	88.3	71.3	84.2
BCG vaccination	95.8	98.2	93.3	96.6
Polio 0	35.8	43.4	28.3	38.8
Polio 1	95.1	98.3	98.1	97.9
Polio 2	94.1	96.4	95.4	95.9
Polio 3	90.4	89.2	88.2	89.1
DPT -1	91.5	90.4	81.8	88.1
DPT -2	91.5	90.4	81.8	88.1
DPT -3	91.5	90.4	81.8	88.1
Measles	89.4	88.4	74.6	84.7
Complete immunization	81.5	82.6	64.4	77.3
Unweighted N	124	271	146	541

Immunization coverage of children between the age of 3 and 6 years shows that more than 90 percent of children were vaccinated with Polio and BCG. Among the type of blocks, children in tribal blocks indicate less than 90 percentage coverage of children vis-à-vis BCG and Polio-3 vaccination. The percentage coverage of children for DPT was reported to be around 80 percent. Here too, relatively lesser percentage of tribal children was found to be receiving DPT vaccine. The percentage coverage of urban children for vaccination against measles was highest (90.6 percent) followed by rural (78.8 percent) and tribal (62.1 percent). Vaccination for vitamin A has not gained ground in the state. Only 8 percent children across all blocks were found to be receiving vitamin A vaccine.

Complete immunization has been estimated by taking into account BCG, 3 doses each of polio and DPT and measles vaccine (an indicator followed by NFHS). In the present study more than 77 percent of children in the age group of 12 months to 23 months were found to be completely immunized. The variation in estimate of complete immunization as against NFHS could be explained by interventions by NRHM, specifically health and Nutrition Day at the village level, which was initiated and regularized post-NFHS activity. Across the blocks urban-rural block analysis do not show much differential, while complete immunization in tribal block is considerably lower (64.4 percent).



Chart 10.1: Complete Immunization (12-23 month)



### 10.1.2 Place for Immunization

With respect to place of immunization, Majority of the respondents mentioned that they had availed immunization services through AWC. Anganwadi utilization of services for vaccination is more common in rural and tribal blocks as compared to urban blocks. Around two-third of the total children (66 percent) were vaccinated at the anganwadi centre; followed by 18 percent at other public service units such as government hospital/PHC/CHC. Urban blocks had fair percentage of children that were vaccinated at places other than anganwadi centres such as other public health care centre (36 percent) and at private clinics or hospitals (17 percent). The dependency on anganwadi centre for vaccination was more in rural (70 percent) and tribal blocks (75 percent).

Table 10.2: Place for vaccination (Weighted percentage)

	Children aged 12-23 months			
	Urban	Rural	Tribal	Total
AWC	46.8	70.1	75.3	66.2
Sub centre/ ANM (at home)	0.0	4.1	8.2	4.3
Camps	0.0	1.5	0.0	0.7
Other public service units	36.3	15.5	8.2	18.3
NGO facilities	0.0	0.0	0.7	0.2
Private doctor/ clinic/hospital	16.9	2.2	4.8	6.3
Unweighted N	124	271	146	541

### 10.1.3 Reasons for non-immunization

One of the primary reasons reported by the respondents for not having their child vaccinated was distance of the facility from their home. Remarkably though, none of the urban respondents cited this reason. Urban respondents' primary reason was that they did not feel the need for vaccination and also there is fear of side effects. It is interesting to note that fear of side effects is there in urban (though the number of responses is very less). The other reason cited by the respondents was they did not have time to go (21 percent). 17 percent respondents also reported about the fear of side effects. Distance to the facility is more common reason for not opting for vaccination in rural (42.6 percent) and tribal blocks (39.4 percent).



Table 10.3: Reasons for non-immunization of children (Weighted percentage)

	Children aged 12-23 months			
	Urban	Rural	Tribal	Total
Facility too far	0.0	42.6	39.4	38.8
Do not feel the need	47.0	7.8	10.6	11.3
No time to go	0.0	20.0	19.1	18.4
Fear of side effects	53.0	29.7	30.9	31.6
Unweighted N	2	7	6	15

## 10.2 Childhood Illnesses

### 10.2.1 Incidence of Childhood Illnesses

Child health programmes in India also aim at reducing the incidence of most important childhood illnesses that contribute to infant mortality. The present survey findings show that three-fifth of the children between the age of 0-6 months had suffered from any illness. Among the illness fever and cough/cold was most common (23.2 percent and 19.9 percent, respectively), followed by diarrhea (11.8 percent). A similar trend of incidence of illness has been observed among the children of 6 month to 3 year of age and 3-6 year of age. As evident from block wise findings, occurrence of illnesses is more common in tribal and rural blocks as compared to urban blocks. It is seen that a small proportion of mothers (8.8 percent) visited any health worker such as ANM/ ASHA in the community in case of occurrence of illness.

Table 10.4: Incidence of childhood illness in last two weeks (Weighted percentage)

Incidence of childhood illness in last two weeks	Lactating Mother				Mother of 6 mon-3yr			
	Urban	Rural	Tribal	Total	Urban	Rural	Tribal	Total
Diarrhoea	14.5	12.9	8.4	11.8	22.8	28.4	36.6	30.1
Dysentery	1.4	1.9	2.8	2.1	5.4	2.3	8.4	4.4
Fever	21.5	23.3	23.8	23.2	30.8	37.4	38.4	36.9
Cough/cold	14.7	17.7	26.7	19.9	22.2	23.8	35.4	27.0
Rapid breathing	0.6	1.9	1.3	1.6	0.3	1.9	2.8	2.0
Any other Illness	2.2	2.7	1.9	2.4	1.5	1.3	1.9	1.5
Unweighted N	294	551	280	1125	296	603	344	1243

### 10.2.2 Feeding Practices during/after Illness

Respondents were asked about the child feeding practices adopted at the time of illness. About 68 percent of the lactating mothers mentioned that they continued giving the child breast milk as usual while 26.3 percent fed the child less often than usual. Block wise analysis show the continuing breastfeeding in a usual way is more common in tribal blocks (83.4 percent) as compared to urban blocks (69.7 percent). Almost 38 percent of mothers of 6 month to 3 year old child mentioned that they continued breastfeeding when the child was ill.



Table 10.5: Feeding practices during/ after illness of child (Weighted percentage)

Feeding of breast milk during illness	Lactating Mother				Mother of 6 mon-3yr			
	Urban	Rural	Tribal	Total	Urban	Rural	Tribal	Total
More often than usual	0.8	2.9	0.0	1.7	3.6	5.1	14.2	7.9
Same as usual	69.7	58.1	83.4	68.0	43.7	39.2	35.2	38.3
Less often than usual	21.1	33.8	15.9	26.3	34.8	39.1	37.7	38.2
Stopped completely/did not give at all	6.6	4.5	0.6	3.5	16.9	15.1	11.6	14.2
Other	0.0	0.0	0.0	0.0	1.0	1.6	1.2	1.4
<b>Feeding of breast milk after illness</b>								
More often than usual	12.8	14.2	0.6	9.5	9.7	13.4	13.4	13.0
Same as usual	83.8	75.4	96.5	83.5	64.3	57.9	70.4	62.5
Less often than usual	1.7	8.7	2.2	5.7	8.4	10.9	4.2	8.5
Stopped completely/did not give at all	0.0	0.4	0.6	0.4	17.0	15.8	11.2	14.4
Other	0.0	0.0	0.0	0.0	0.6	2.0	0.8	1.5
Unweighted N	99	197	125	421	135	346	215	696

### 10.2.3 Treatment Seeking Behaviour

When the child was ill with diarrhea, 25.3 percent of mothers gave ORS salt powder while 36 percent of mothers gave the treatment as prescribed by the health worker. Nearly 10.3 percent of lactating mothers and 17.3 percent of mothers of children 6 month to 3 year were advised by AWW to prepare and feed ORS. It is observed that use of ORS during the incidence of diarrhea is more common in urban block whereas higher proportion of mothers in tribal blocks opt for prescribed treatment. Only in 4.3 percent of cases children were reported to be admitted to the hospital (Table A – 10.2 annexed).

As reported by nearly 4 percent of the mothers (including lactating and mother of 6 month to 3 year old child), their children had suffered from rapid breathing in the past two weeks preceding the survey. Among these children 30.8 percent and 37.3 percent of children had suffered from rapid breathing problem for the three and four times, respectively, since birth. During the incidence of rapid breathing problem most of the mothers (65 percent) gave medicine as prescribed by the health worker while around 13 percent did nothing about the problem.



## Chapter XI

### Pre-School Education

The early childhood care and pre-school education component of the ICDS may well be considered the backbone of the ICDS program, since all its services essentially converge on the anganwadi. The main objective of pre-school education component is to lay the foundation for proper psychological, physical and social development of the child. The idea is to stimulate and satisfy the curiosity of the child, rather than follow any rigid learning curriculum. The service specifically focuses on the total development of the child in the age range of up to six years.

#### 11.1 Registration and Attendance at AWC

The present study findings show that 79 percent of children in the age group of 3 to 6 years were registered with the AWC. Of those who are registered at AWC only 62.6 were going to anganwadi for pre-school education. Block wise findings show that attendance in urban blocks is lower (57.2 percent) as compared to rural (67.8 percent) and tribal blocks (64.2 percent). While nearly 48 percent of children were regular in attending AWC, 40.7 percent children attend to AWC sometimes. Children in tribal and rural blocks were more regular in attending pre-school education services from AWC as compared to urban children.

**Table 11.1: Utilization of Pre School Education Services at AWC (Weighted percentage)**

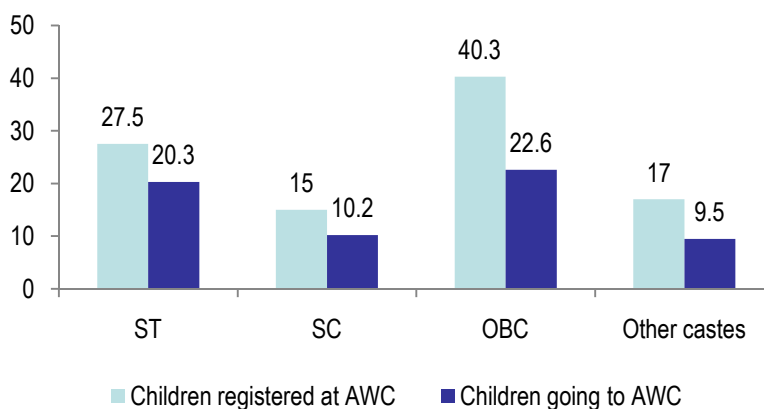
Indicator	Urban	Rural	Tribal	Total
Children registered with the AWC	78.2	79.2	79.9	79.0
Unweighted N	301	603	340	1244
Children going to AWC for PSE	57.2	67.8	64.2	62.6
Unweighted N	235	480	276	991
Frequency of going to AWC for PSE				
Regularly	45.9	46.8	51.9	47.9
Sometimes	39.5	42.7	39.6	40.7
Occasionally	14.6	9.3	6.5	10.5
Unweighted N	133	322	181	636

The utilization of preschool education services by caste/tribe indicates higher proportion of children registered at AWC who belong to backward class (40 percent) as compared to scheduled tribe (27.5 percent) and scheduled caste population (15 percent).





**Chart 11.1: Percent distribution of children availing pre-school education by caste category**



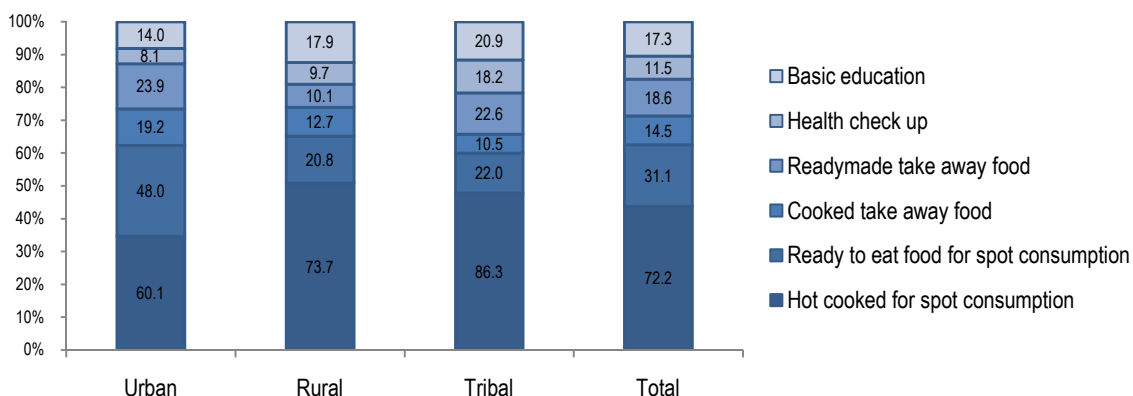
For 91.5 percent of mothers anganwadi worker advised and motivated them to register their child at AWC while in about 12 percent of cases family members advised for registration of child at AWC. Marginal differentials were observed across the type of blocks.

## 11.2 Services at AWC

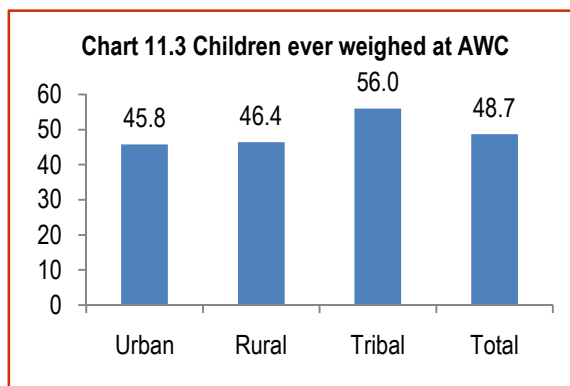
### 11.2.1 Food

Through pre-school education ICDS provides integrated services to children below the age of six years. One of the important mandates of anganwadi center is to provide supplementary nutrition to children under 6 years of age in the form of cooked food served at AWC on a daily basis or given in the form of take-home rations, along with the pre-school education. The findings show that nearly 72 percent of children at AWC received cooked food while 31 percent received ready to eat food at AWC for spot consumption. On the other hand only 14 percent and 19 percent of the children received cooked and readymade food, respectively, for take away. Block differentials show that hot cooked food for spot consumption is more common in tribal blocks whereas ready to eat food for spot consumption is more common in urban blocks as compared to other blocks.

**Chart 11.2: Services at AWC for Pre School Education children**



As evident from the findings, anganwadi services for children of age 3 years to 6 years is majorly focused on food and nutrition while health check-up and related services are paid little attention. Overall only around 49 percent of children registered at AWC were ever weighed at AWC. The probable reason for this can be drawn from results on equipment supplies and functionality of machines. The data from AWC shows that only 51 percent of AWCs had weighing machine for children out of which 79.6 percent were in working condition.



Frequency of food distribution at AWC indicates that more than four-fifth of the children (81.1 percent) received any supplementary food from AWC on a daily basis while almost 4 percent received food from AWC once a week. With regard to type of food received at AWC, Daliya (82.5 percent) is the most common food item received by children at AWC followed by *Suji Ka Halwa* (38.5 percent) and *Poori Sabzi* (35.3 percent) (Table A – 11.2 annexed). Other food items received at AWC include *Kheer*, *Murmure*, *Rice-Dal*, *Sattu* and *Poha*. It is observed that food items such as *Daliya*, *Murmure* and *Suji Ka Halwa* were more common in urban blocks while *Poori Sabzi* and *Kheer* were more common in tribal blocks.

**Table 11.2: Food at AWC for preschool education children (Weighted percentage)**

Frequency of receiving food at AWC	Urban	Rural	Tribal	Total
Daily	87.0	77.0	78.7	81.1
Alternate Days	13.0	14.1	16.5	14.3
Once a week	0.0	8.9	4.9	4.5
Unweighted N	133	322	181	636



Food at AWC remains the major motivating factor for children to attend to preschool education at AWC. Around 66 percent of mothers of children of age 3 to 6 year mentioned that provision of food at AWC encourages children to go to the AWC. Only 23 percent of mothers find education as the main driving force for attending to AWC. Almost 30 percent of the mothers mentioned that special food days are celebrated at AWC once in a week while 13.1 percent mentioned that special food days happen once a month. Organization of special food days is found to be more common in urban blocks where 31.3 percent of mothers mentioned about celebration of special food days.

**Table 11.3: Motivational activities for children at AWC (Weighted percentage)**

Motivation for children to go to AWC	Urban	Rural	Tribal	Total
Food	55.9	66.4	77.8	65.7
Celebrations	5.7	1.8	6.2	4.4
Education	28.0	25.4	8.1	21.6
Other	10.5	6.4	7.9	8.3
Frequency of special food days at AWC				
Never	34.6	48.8	51.1	44.2
Once a week	43.4	31.1	31.1	35.6
Once a month	22.0	20.1	17.8	20.2
Unweighted N	133	213	143	636

### 11.2.2 Basic Education

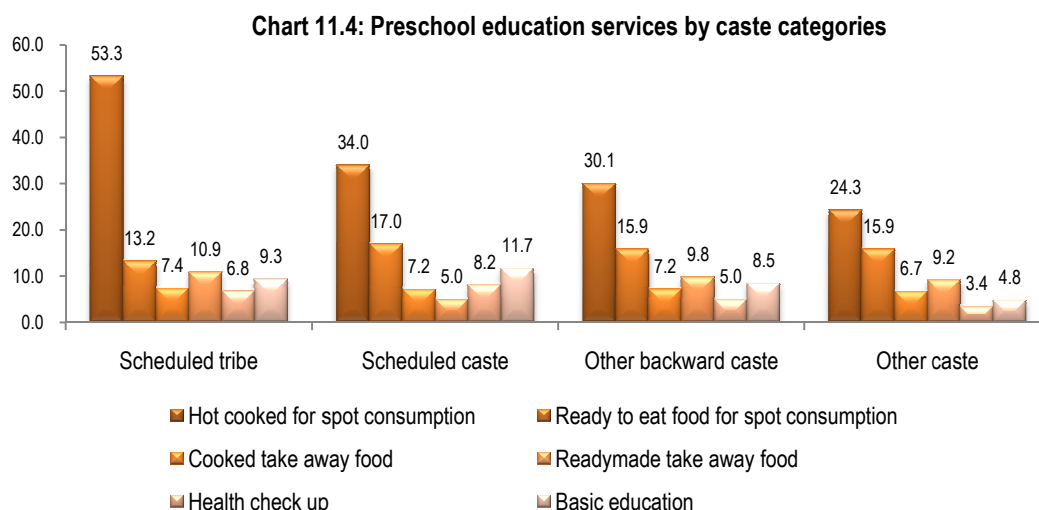
Provision of early childhood care or preschool education for children 3 to 5 years of age is another important component of the ICDS programme. The information on the utilization of early childhood care or preschool education services show that less than one fifth (17.3 percent) of the children in the age group of 3 to 6 years were receiving preschool education services from AWC. A slightly higher proportion of mothers in tribal blocks (20.9 percent) recognize the utilization of basic education services from anganwadi as compared to 17.9 percent mothers in rural blocks and 14 percent of mothers in urban blocks.

### 11.2.3 Health Check up

Provision of regular health checkups at AWC is another important component of ICDS programme. Findings show that 11.5 percent of children under 6 years of age who are covered by an anganwadi center received health check-up at AWC as a part of pre-school education programme. Across the block comparison shows a higher proportion of children in tribal blocks (18.2) had received any health check-up from the AWC as compared to rural (9.7 percent) and urban blocks (8.1 percent).

Differences are observed in utilization of early childhood care and preschool education services by caste categories. As evident from the findings availing of hot cooked food for spot consumption is more prominent among scheduled tribes. With respect to health check up and basic education service utilization is seen to be better among scheduled caste population group.





Growth monitoring of children is another basic component of nutritional services provided through anganwadi centers. Children below the age of six are weighed at AWC and weight-for-age growth charts are maintained to identify malnourished cases. Those suffering from severe malnutrition (Grade III and IV) are given special supplementary nutrition and acute cases are referred to the medical services. Nearly half of the respondents (48.7 percent) mentioned that their child had ever been weighed at the AWC while only 3 percent had seen the growth chart being prepared by anganwadi for their child. However 6.3 percent of the respondents stated that they had been told about the growth curve of their child.

**Table 11.4: Weighing of child (Weighted percentage)**

Growth indicators	Urban	Rural	Tribal	Total
Children ever weighed at AWC	45.8	46.4	56.0	48.7
Seen growth chart being prepared by AWC	4.2	1.9	3.9	3.4
Told about growth curve of child	9.6	3.8	4.4	6.3
Unweighted N	301	603	340	1244

## Chapter XII

### Health and Nutrition of Adolescent Girls

As a part of ICDS programme schemes for adolescent girls intend to meet the Nutrition, Health, Education, Literacy, Recreational and Skill Development needs of the Adolescent Girls. The objective of the scheme is to improve nutritional status of adolescent girls, provide them non-formal education so as to stimulate a desire for social exposure and knowledge seeking and help them improve decision making capabilities. The scheme also aims to promote awareness of health, hygiene, nutrition and family welfare.

In the present study 'adolescence' has been defined as the period between 10 and 19 years, conforming to the WHO norms. The present chapter describes the health and nutritional awareness of adolescents vis-a-vis services received from anganwadi center. The findings pertain to adolescent girls in the age group of 10-19 years, which are covered under the present survey.

#### 12.1 Knowledge of Anganwadi Services and Schemes for Adolescent Girls

The adolescent girl scheme has been implemented through anganwadi centers. The knowledge of existence of AWC in the village is found to be almost universal. Among the surveyed adolescents 28 percent of adolescents were registered with AWC for services under the adolescent scheme. Differential across the block show a higher proportion of adolescent being registered in tribal blocks (34.7 percent) as compared to urban (29.1 percent) and rural blocks (20.9 percent).

Under the scheme for adolescent girls AWWs involve two adolescent girls from the village in the activities of AWC. The adolescents who are registered at AWC are entitled to certain provisions from AWC. As evident from the data the survey covered 330 adolescent girls (out of total surveyed 1242 adolescents) who are associated with AWC and are receiving benefits under the adolescent girl scheme. The following section of findings on service related indicators of health and nutrition of adolescent girls pertain to only those adolescent girls (330 adolescents) who are associated or registered with anganwadi center activities.

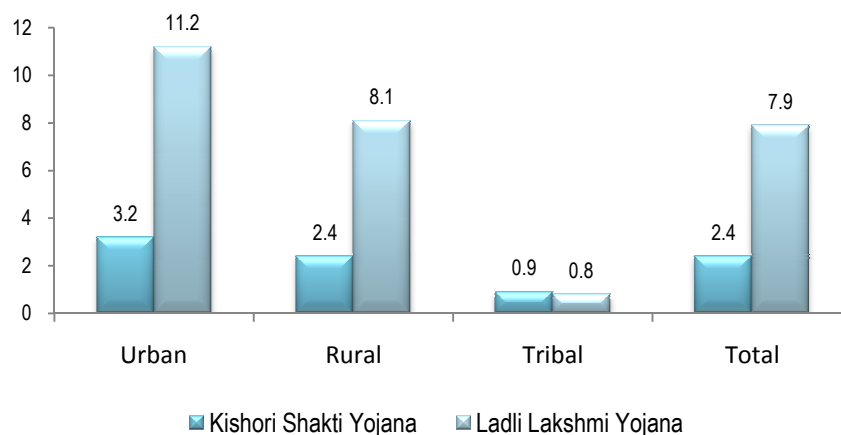
Among those adolescents who were registered under the adolescent scheme majority (47.9 percent) of adolescent girls mentioned about supplementary nutrition being distributed at the AWC, followed by nutrition and health education (27.8 percent) and iron folic acid tablets (25 percent). Block wise comparison shows service delivery of supplementary nutrition and NHE under adolescent scheme is better in urban blocks wherein 58 percent and 36.1 percent of adolescents, respectively, mentioned about receiving the services. On the other hand distribution of iron folic acid tablets is observed to be more common in tribal blocks (29.7 percent) as compared to rural (26.6 percent) and urban blocks (21.5 percent).



**Table 12.1: Services at AWC for adolescent girls who are registered at AWC (Weighted percentage)**

Registration	Urban	Rural	Tribal	Total
Adolescents registered at AWC	29.1	20.9	34.7	28.0
Unweighted N	299	611	332	1242
<b>Services for those who are registered at AWC</b>				
Supplementary Nutrition	58.0	41.9	40.8	47.9
Nutrition and Health Education	36.1	23.9	16.4	27.8
IFA tablets	21.5	26.6	29.7	25.0
Health check up	15.9	10.0	7.2	12.1
Family Life Education	12.1	5.2	2.8	7.9
Training on life skills	11.7	3.4	3.8	7.6
Information on rights of girl child	6.6	1.8	0.0	3.6
Any other	1.5	0.0	0.0	0.7
Unweighted N	89	133	108	330

Knowledge related to various schemes under ICDS is limited among adolescent girls. Very few adolescents i.e. 7.9 percent and 2.4 percent could recognize *Ladli Lakshmi Yojana* and *Kishori Shakti Yojana*.

**Chart 12.1: Awareness of schemes among adolescents**


Nearly 35 percent of the respondents mentioned that the scheme aims to provide advice regarding health and nutrition. Knowledge among adolescents on provisions under the scheme is better in urban blocks as higher proportion of adolescent respondents were able to mention about provisions like nutrition and health education.

**Table 12.2: Knowledge of provisions under adolescent girls scheme (Weighted percentage)**

Provisions under the scheme	Urban	Rural	Tribal	Total
Advice regarding nutrition and health	37.9	30.4	29.8	34.5
Literary and cultural competition between girls	15.3	10.0	11.8	13.3
Monetary benefit to girl child	10.9	3.6	3.2	7.6
Advice regarding Pregnancy care/Delivery/Breastfeeding	4.7	3.6	0.0	3.5



Any Other	0.0	3.7	7.9	2.5
Unweighted N	49	73	43	165

Among the source of knowledge about schemes for adolescents, inter-personal sources of information were found to be more effective as compared to mass media sources. For majority of the respondents (68.7 percent) friends/relatives/neighbour was the prime source of information followed by AWW (45.1 percent). Few respondents (13.7 percent) mentioned about teachers as the source of information about the schemes. In addition to inter-personal sources, mass media sources like radio and TV were most commonly mentioned by 22.5 percent of the adolescent respondents. Block wise comparison indicates higher proportion of respondents mentioning inter-personal and mass media sources in urban blocks as compared to rural and urban blocks.

**Table 12.3: Source of knowledge for adolescent scheme (Weighted percentage)**

Source of knowledge of schemes	Urban	Rural	Tribal	Total
Friend/relative/neighbour	71.2	69.5	61.1	68.7
AWW	46.8	44.1	42.0	45.1
Teacher	11.7	15.5	16.6	13.7
ANM/ ASHA/Doctor	4.1	5.6	1.4	4.0
SHG members	0.1	1.9	0.5	0.7
Radio/TV	31.8	14.4	8.3	22.5
Newspaper/Magazine	5.4	3.3	2.9	4.3
Poster/pamphlets	2.9	1.2	0.4	2.0
Hoardings/ Wall painting	1.2	1.3	2.1	1.4
Unweighted N	198	332	177	707

## 12.2 Food Intake

In the present study an attempt has been made to gather data on dietary intake of adolescents by one day 24 hour recall. The findings show that majority (92 percent) of the adolescents had any bread or chapatti during the day or night before the survey. While 66.6 percent and 68.2 percent of the adolescents had rice/grain and dal/pulses, respectively, only 28.9 percent reportedly ate leafy vegetables. Consumption of fruits, milk, meat/fish/eggs was relatively very low. (Table-A 12.1 annexed). Comparison of diet pattern across the type of blocks show that consumption of fruits and other eatables rich in vitamin A and C is better in urban blocks, followed by rural blocks. During the last 7 days nearly 5 percent of the respondents have two meals in a day while 47 percent had food three times a day. Further to this, almost 43 percent of the respondents also had snacks between the meals.

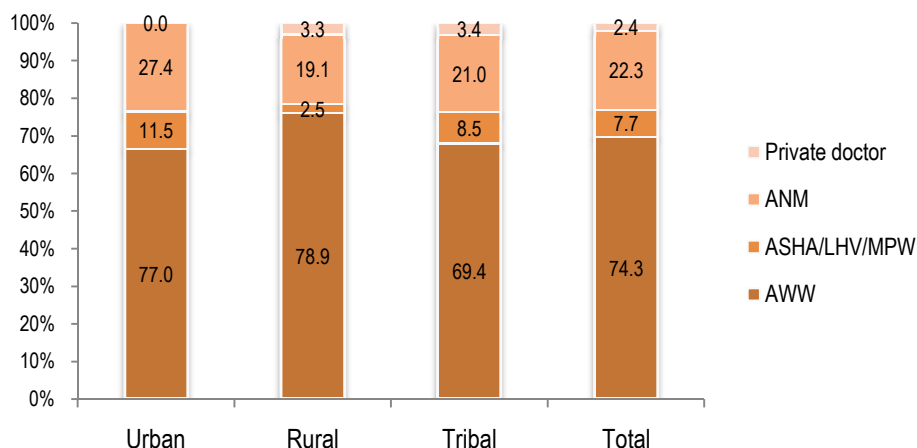
## 12.3 Iron Supplementation

It is a known fact that during adolescence the iron requirement increases due to changes in body mass and blood volumes. Onset of menstruation further increases these requirements. But in the absence of adequate dietary intake of iron, the girls become highly prone to anemia. As a part of scheme for adolescents, iron supplementation in the form of folic acid tablets are provided to adolescents to combat the health problem due to iron deficiency. The



findings of the present study indicate that more than 95 percent of the respondents were not taking IFA tablets while only 4.5 percent reportedly consume IFA either daily or once in a week. The main source of IFA was found to be AWW as 74.3 percent of the adolescents take IFA from AWW, followed by 22.3 percent of adolescents who received IFA from ANM (Table A – 12.4 annexed). Among all the blocks intake of IFA is found to be better in urban blocks. AWW and ANM remain the most common source for taking IFA in urban blocks as compared to rural and tribal blocks.

**Chart 12.2: Source of IFA tablets**



Reportedly IFA consumption by adolescents is mostly (38 percent) monitored by mothers or mother-in-laws. Nearly 34 percent of the adolescents mentioned that AWW monitors their intake of iron tablets while 33 percent of the adolescents watch their iron consumption themselves.

Further, nearly 16 percent of adolescents had undergone blood test for assessing anemia status while 23 percent had taken blood test for malaria. Comparison across the blocks shows marginal differences in proportions who had undergone anemia and malaria testing in urban (16.7 percent and 25.6 percent, respectively) and tribal blocks (17.1 percent and 25.8 percent, respectively).

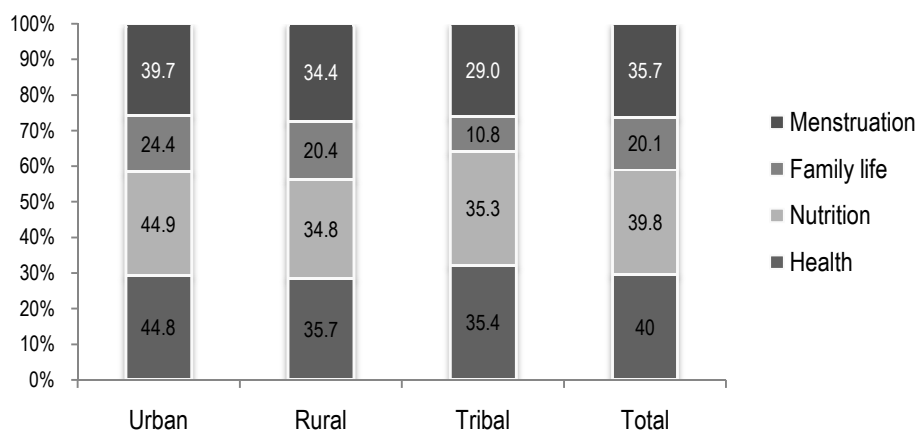
#### 12.4 Awareness about Health and Nutrition

As a part of ICDS programme generating awareness among the adolescents, nearly 9 percent of the adolescent girls in the anganwadi area received training from AWW. A relatively higher proportion of respondents from urban blocks (12.9 percent) were trained as compared to rural (6.1 percent) and tribal blocks (5.4). Most of the adolescents (11.7 percent) received training on issues of health and nutrition, followed by family life education (54.9 percent) and life skills (33.2 percent). (Table-A 12.9 annexed). Almost 40 percent of the adolescents had received advice related to nutritional and health aspects while 36 percent were advised about menstrual issues. Besides AWW, 74 percent of adolescents had shared their problems and received advice from family members while 65 percent of adolescents had talked with school teacher. Mass media has been reported as another source of information particularly in urban blocks where 22.7 percent of the adolescents came to know about health and nutrition from television/ newspaper.





Chart 12.3: Advice received by AWW



Trainings and inter-personal communication through adolescent groups focused on imparting knowledge on issues related to reproductive and child health. The findings show that 18.2 percent of adolescents could identify reasons for low birth weight. The most commonly reasons mentioned for low birth weight was iron deficiency during pregnancy (as cited by 64.9 percent of the respondents). However, only 26 percent of the respondents could cite desirable weight of newborn correctly.

Regarding food intake during pregnancy, 69.6 percent of the adolescents understand that it is important to consume green leafy vegetables, while 68.7 percent adolescents mentioned about consumption of fruits for increasing blood. Besides, 22.2 percent and 19.5 percent of adolescents considered intake of cereals and pulses, respectively, as vital during pregnancy. Only one-tenth of the respondents mentioned about intake of iron supplementation in the form of IFA tablet/syrup. Segregated analysis at the level of type of block indicate higher knowledge about consumption of green leafy vegetables and fruits in urban blocks (78.8 percent and 79.8 percent)) as compared to rural (63.9 percent and 62.9 percent) and tribal blocks (57.8 percent and 53.4 percent). (Table-A 12.13 annexed).

With regard to knowledge about initiation of breastfeeding about 33 percent of the adolescent respondents recognize that breastfeeding should be initiated within one hour of birth. Block wise analysis do not show much differential as 34.2 percent of adolescent in urban blocks and 31.8 percent of adolescents in rural blocks could mention about early initiation of breastfeeding. Further, more than half of the respondents (52.6 percent) mentioned that feeding of first milk of mother is important for the newborn. Among the reasons cited for feeding of colostrum, majority (47.8 percent) mentioned that it is important for the health of child while others mentioned about its role in triggering lactation (37.6 percent). Feeding of colostrum as a tool for improving immunity against diseases and high nutritional values of colostrum were clearly recognized by 35.3 percent and 36.9 percent of the respondents, respectively. It is observed that benefits of first milk relating to its nutritional values are comparatively lower in tribal blocks where lactational benefits are more commonly recognized.



**Table 12.4: Knowledge of adolescents on health and nutrition (Weighted percentage)**

<b>Knowledge about initiation of breastfeeding</b>	<b>Urban</b>	<b>Rural</b>	<b>Tribal</b>	<b>Total</b>
Within 1 hour	34.2	31.8	32.9	33.2
Between 1-2 hrs	14.6	15.2	18.6	15.7
Between 2-24 hours	3.7	3.3	6.4	4.2
On second day	0.9	3.1	3.3	2.1
On third day	1.9	2.5	0.0	1.6
Don't know	44.7	44.0	38.7	43.1
<b>Feeding of colostrum important</b>	<b>57.2</b>	<b>50.1</b>	<b>46.3</b>	<b>52.6</b>
Unweighted N	303	613	332	1248
<b>Benefits of first milk</b>				
It is rich in Vitamin A and Protein	46.2	24.2	30.0	36.9
It develops immunity against diseases	36.5	32.6	35.8	35.3
it triggers good lactation	37.6	30.4	47.0	37.6
It is very good for child's health	47.4	54.0	40.7	47.8
It prevents night blindness	0.4	0.7	0.5	0.5
Any other	0.1	0.8		0.3
Don't know	13.9	13.1	10.5	13.0
Unweighted N	176	310	162	648

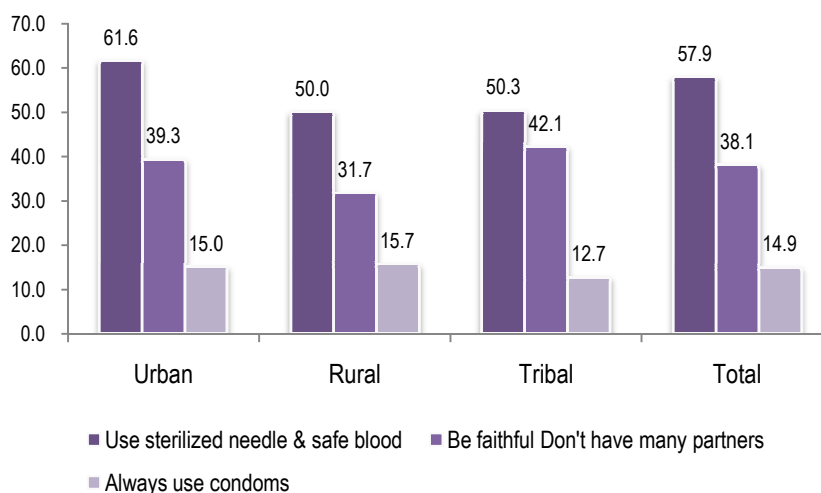
According to 59 percent of the adolescents exclusive breastfeeding means feeding of only mother's milk. Only 50 percent of the adolescents could mention that a child should be exclusively breastfed up to the age of 6 months. The awareness on exclusive breastfeeding up to 6 months is relatively high in urban blocks (56.8 percent) as compared to rural blocks (46.2 percent) and tribal blocks (39.3 percent).

Adolescent respondents were asked about their knowledge on immunization schedule for the pregnant women and the child. While 28.6 percent of the adolescents were aware of immunization schedule for children, only 9.9 percent of the adolescents mentioned about immunization schedule for pregnant women. Analysis across the blocks indicates relatively higher awareness about child immunization as well as pregnant women immunization in tribal blocks. Further, with respect to knowledge pertaining to child health 61.7 percent of the adolescents were aware of ORS treatment if the child is suffering from diarrhea. Knowledge of ORS treatment for diarrhea is considerably higher in urban blocks (78.6 percent) as compared to rural (51.2 percent) and tribal blocks (39.5 percent)

Nearly 40 percent of the adolescents ever heard of HIV/AIDS. As expected, higher proportion of respondents had ever heard of HIV/AIDS in urban blocks (55.5 percent) as compared to rural and tribal blocks (20 percent). Most of the adolescents (57.9 percent) recognized that use of sterilized needles and transfusion of safe blood provides protection against HIV infection while 38.1 percent mentioned about being faithful to one uninfected sexual partners protects from getting infected with HIV.



**Chart 12.4: Knowledge of protection from HIV/AIDS**

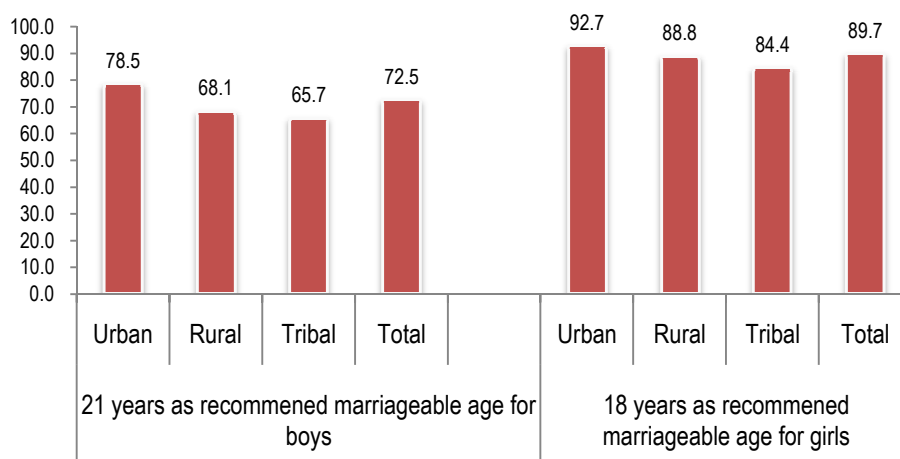


The knowledge on family planning methods is relatively lower among the adolescents as only 22.2 percent of adolescents were aware of any family planning method. Among the type of methods female sterilization is most commonly mentioned by more than 79 percent of the respondents, followed by oral contraceptive pills (50.2 percent). Only 27.6 percent and 20.9 percent of the adolescent girls cited condoms and copper-T, respectively. (Table-A 12.18 annexed). Block wise comparison show higher knowledge on spacing methods as well as male sterilization method in tribal blocks, while female sterilization is most commonly mentioned in urban blocks.

### 12.5 Perceptions on Age at marriage

In addition to health education Adolescent girl scheme promote awareness of right age for marriage as permitted by Indian Constitution. Perceptions of adolescent girls on age at marriage indicate relatively high awareness on correct age at marriage for girls as compared to awareness on correct age at marriage for boys. Almost 72 percent of the adolescent girls could mention about the recommended age at marriage for boys as 21 years while 89.7 percent of the adolescents were aware of recommended age at marriage for girls as 18 years. It is observed that knowledge of recommended age at marriage is higher in case of urban blocks followed by rural and tribal blocks.

**Chart 12.5: Knowledge of recommended age for marriage**



As mentioned by 77 percent of the adolescent girl respondents, girls in the community usually get married at the age of 18 years and above. Age at marriage however is found to be lower in case of tribal and rural blocks as compared to urban blocks. Almost 63 percent of the adolescents mentioned that they had been advised by someone on correct age for marriage. Among the sources for advice family members and school teachers were most commonly mentioned by 62 percent and 57.6 percent of the adolescents.

### 12.6 Hygiene and Sanitation Practices

One of the objectives of adolescent scheme is to make the adolescent girl understand and learn the significance of personal hygiene and environmental sanitation. It is found that the knowledge and practices related to personal hygiene is higher among the adolescent girls. More than 98 percent of the adolescent girls mentioned that they take bath regularly while 92 percent of the adolescent girls wash their hand with soap or ash before or after meals. Analysis across the blocks with respect to hand washing practices show marginal variations. Nearly 50 percent of the adolescent respondents use toilet (personal toilet or community toilet or shared toilet) for defecation. Use of toilet is much more common in urban blocks in comparison to rural and tribal blocks.

**Table 12.5: Knowledge and practice on hygiene and sanitation (Weighted percentage)**

Hygiene and sanitation indicators	Urban	Rural	Tribal	Total
Take bath regularly	98.7	97.5	98.2	98.2
Wash hands with soap/ash before and after meals	96.3	90.3	85.1	92.0
Defecation				
Personal /family toilet	77.3	20.1	10.4	45.3
Shared toilet	2.2	2.6	3.5	2.6
Community Toilet	3.7	0.1	0.9	2.0
In open	16.9	77.1	85.2	50.0
Wash hand with soap/ash after defecation	98.5	96.3	93.4	96.6
Unweighted N	303	613	332	1248



## Chapter XII-A

### Beneficiary-Wise Summative Findings

This chapter provides summative findings of ICDS on the targeted beneficiaries i.e. of Pregnant mothers, Lactating mothers, Mothers of children of 6 months to 3 years of age, Mothers of the children of 3 years to 6 years of age and adolescent girls. Comprehensively it provides findings on Awareness of Schemes, Antenatal Care and Post Natal Care, Status of Supplementary Nutrition Delivery, Breastfeeding and Complementary Feeding Child Immunization, status of Pre-School Education etc.

#### 12A.1 KEY FINDINGS – PREGNANT WOMEN

##### Awareness of Schemes for Pregnant Women

More than 42 percent of pregnant women were aware of *Mangal Diwas Yojana*, specifically *Godh Bharai Diwas* which is mainly celebrated to provide benefits to pregnant women. Of these 59.2 percent of the pregnant women reported participation in celebration of *Mangal Diwas*. Slight differential were evident across the type of block comparison, where 43.2 percent of pregnant women in urban and rural blocks; and 40.4 percent in tribal blocks were aware of *Mangal Diwas Yojana*. The participation of pregnant women in *Mangal Diwas* was reported to be higher in tribal blocks (65.4 percent) as compared to urban (58.4 percent) and rural (57.4 percent) blocks. Nearly 70 percent of the pregnant women were aware about *Poorak Poshan Aahar* (supplementary nutritional diet) being distributed through AWC. Of those who were aware of *Poorak Poshan Aahar* 67 percent were receiving benefits under the scheme. Further, 57.7 percent of the pregnant women respondents were aware of JSY. The knowledge of another scheme, *Janani Express Yojana* is found to be lower (13.6 percent). However block differential on the awareness of *Janani Express Yojana* shows high awareness among tribal blocks (18.6 percent) as compared to rural (12.3 percent) and urban (12.2 percent) blocks.

##### Ever Utilization of Services from AWC

A total of 46.1 percent of the pregnant women beneficiaries received supplementary nutrition. Nearly 56 percent of the pregnant women availed TT vaccination while 42.5 percent of the pregnant women received IFA tablets as a component of ANC services. Across the block comparison shows that utilization of services is higher in tribal blocks, wherein 53.1 percent of the pregnant women reportedly has availed supplementary nutrition, as compared to rural (46.2 percent) and urban (34.6 percent) blocks. Other services availed by pregnant women beneficiaries include advice for pregnancy care (10.2 percent), nutrition intake (7.3 percent) and advice for delivery care (6.9 percent).

##### Antenatal Care

Almost 79 percent of respondent pregnant women reported to have registered their pregnancy. Among these majority (82.9 percent) claimed that they have registered their pregnancy at AWC. The registration of pregnancy at AWC is found to be higher in case of rural (86.2 percent) and tribal (84.1 percent) blocks as compared to urban blocks (66.6 percent). Nearly 17 percent of respondents registered themselves within one month of pregnancy.

Among the pregnant women who registered themselves during pregnancy, 61.2 percent of the respondents had received ANC during pregnancy. Nearly 56 percent of the pregnant women availed TT vaccination while 42.5 percent



of the pregnant women received IFA tablets as a component of ANC services. Block differentials show substantial difference in proportion of respondents who received ANC in urban blocks (79.3 percent) in contrast to tribal (59.2 percent) and rural (58 percent) blocks. Distribution of respondents by type of service received across the blocks show higher service utilization with regard to at least 3 antenatal checkups in urban blocks whereas TT vaccination is higher in rural blocks.

Majority of the respondents (55.2 percent) has visited doctor for receiving antenatal care and 49.2 percent received antenatal care from ANM. Across the block comparison shows that ANM is the most common source of receiving antenatal care in tribal blocks (69.4 percent) followed by rural blocks (51.6 percent) while doctors are most visited in urban blocks (86.3 percent) for antenatal care services. The source of antenatal care by type of service availed indicate higher service utilization through AWC/AWW as compared to health center (SC/PHC/CHC/Hospital) specifically in rural and tribal blocks than urban blocks. Almost 55 percent of the respondents mentioned that they had received TT vaccination through AWC in contrast to 30.5 percent who had received TT vaccination from any health center.

Nearly 34 percent of the respondents had undergone anaemia testing and 12.4 percent had undergone malaria testing during pregnancy. The proportion of respondents who had taken anaemia and malaria test is higher in urban blocks followed by tribal and rural blocks. Overall only 0.7 and 2.6 percent of respondents took de-worming and anti-malaria drugs during pregnancy. These proportions were universally low across the blocks.

AWW (50.6 percent) and ANM (44.5 percent) are by far the most common sources of information about antenatal care followed by friends/relatives/neighbours (32.2 percent). Major source of information in rural as well as tribal blocks comes out to be AWW while in urban blocks information on pregnancy care through ANM/doctor is common. This clearly reflects better availability of AWC services in rural and tribal blocks. On the other hand given the facility set up and living environment in urban blocks accessibility to doctor or ANM is higher.

### Supplementary Nutrition

Among pregnant women respondents 50.1 percent had received supplementary food at AWC. During the past one month only 17 percent had received food for more than 21 days in a month while almost 25 percent of the respondents had received food for up to only 7 days in a month.

Among those who receive food nearly 71.3 percent of pregnant women share the take home food with other members of the family. Block wise distribution by amount of food shared reveals that 67 percent of the pregnant women in rural blocks share almost half of the food received as compared to nearly 51 percent of pregnant women in tribal blocks. Findings for lactating women show that 44 percent of respondents from rural blocks shared less than 1/4<sup>th</sup> of the food received from AWC, followed by respondents in tribal blocks (42.9 percent).

Regarding quality of food received more than 51 percent of pregnant women respondents perceive that food provided at AWC is of good quality. Considerably higher proportion of pregnant women respondents in tribal blocks (65.3 percent) were of the same view as compared to rural (46.3 percent) and urban blocks (48.9 percent). The reason mentioned for not availing food from AWC was that nobody is available in their house to go and take food at



AWC. This reason was cited mostly in rural blocks. On the other hand in urban blocks most frequently it was mentioned that they do not need food from AWC.

### Planning for Delivery

Almost 56 percent of pregnant women mentioned that they have received advice related to preparations for delivery. Segregated analysis at the level of block show that majority i.e. nearly three fourth (73.3 percent) of the pregnant women respondents and 61.4 percent of lactating mothers in urban blocks had received advice related to delivery care at the time of pregnancy, followed by rural (57.9 percent and 40.3 percent, respectively) and tribal blocks (42 percent and 38.2 percent, respectively). Among the pregnant women AWW remained the most common source of advice while in case of lactating women for majority of the respondents ANM/ASHA were the prime source of information followed by AWW and doctor. Block differential clearly indicate predominance of seeking advice from doctor in urban blocks.

The advice related to delivery care mainly involved information on institutions/hospitals for delivery, as mentioned by nearly 53 percent of the pregnant women and 87 percent of lactating mothers. Almost 31 percent of pregnant mothers and 35 percent of lactating mothers were suggested to decide about the person who would accompany at the time of delivery. With regard to block level analysis high proportion of respondents in urban and rural blocks had received any advice related to delivery care.

Among the pregnant women respondents only 5.7 percent of the respondents were planning for home delivery while majority i.e. 83 percent of the respondents had decided upon PHC/CHC/hospital for delivery. Block level analysis indicates comparatively higher proportion of pregnant women respondents from rural (87.1 percent) and urban blocks (76.1 percent) planning for institutional delivery as compared to tribal blocks (74.9 percent). Those pregnant women who were thinking of home delivery nearly 40 percent had been advised for precautions that need to be taken for clean and safe delivery at home.

## 12A.2 KEY FINDINGS – LACTATING WOMEN

### Awareness of Schemes for Lactating Mothers

Nearly 73 percent of the lactating women were aware of *Poorak Poshan Aahar* while 64.6 percent knew about *Mangal Diwas Yojana*. Of these, almost 66 percent of the respondents mentioned that they ever participated in *Mangal Diwas*. Further to this, only 5.1 percent of lactating women mentioned about *Stanpan Diwas* being celebrated once in a year specifically for lactating women, out of which 18.8 percent ever participated in celebration of *Stanpan Diwas*. Block-wise analysis shows considerably higher participation of lactating women in urban blocks (52.9 percent) as compared to rural (13.4 percent) and tribal (16.4 percent) blocks. (Refer table-A 5.7 annexed).

Segregated analysis by type of blocks indicates higher awareness as well as participation of lactating women beneficiaries on schemes such as *Poorak Poshan Aahar* and *Mangal Diwas Yojana* in urban blocks (78.3 percent and 73.2 percent) as compared to rural (71.4 percent and 66.1 percent) and tribal (74.8 percent and 57.9 percent) blocks. On the other hand awareness about *Ladli Lakshmi Yojana* and *Bal Sanjeevani Abhiyan* is found to be higher in tribal blocks (54.9 percent and 32.1 percent, respectively) followed by urban and rural blocks (45.9 percent and 15.9 percent in urban blocks; 37.2 percent and 14.3 percent in rural blocks, respectively).





### Ever Utilization of Services from AWC

About 67 percent of lactating women mentioned that they had received supplementary nutrition during pregnancy while 53 percent are receiving supplementary nutrition during lactation. Analysis by type of block shows that 69.2 percent of lactating women in tribal blocks has received supplementary nutrition as compared to 48.2 percent in rural and 36.8 percent in urban blocks. Nearly 66 percent of the lactating women mentioned about the advice received regarding nutrition and health of mother and child. Across the block comparison shows that utilization of anganwadi services is higher in case of tribal blocks followed by urban blocks and rural blocks.

### Supplementary Nutrition

Almost 46 percent of lactating mothers had received food from AWC. As expected a higher proportion of lactating women in tribal blocks had received supplementary food during lactation (56.7 percent) followed by rural (43.3 percent) and urban blocks (33.2 percent).

Majority of the lactating mothers (i.e. 53.4 percent) had received supplementary food from AWC during the last 7 days. The frequency of getting food from anganwadi is observed to be better in urban and rural blocks as compared to tribal blocks. As evident from the findings 22 percent of the lactating women in urban and rural blocks received food a day before the survey while only 9.3 percent of lactating women claimed so in tribal blocks. Similarly 66.4 percent of lactating mothers in urban blocks received food from AWC in the last week as compared to 56.5 percent in tribal blocks. Food from AWC by standard of living index indicates relatively higher utilization of supplementary nutrition service by respondents belonging to low standard of living.

More than 90 percent of lactating women believed that the quantity of food received at AWC was sufficient. Nearly 83 percent of lactating mothers revealed that they share the take home food received from AWC with other members of the family. Block wise distribution by amount of food shared reveals that 44 percent of respondents from rural blocks shared less than 1/4<sup>th</sup> of the food received from AWC, followed by respondents in tribal blocks (42.9 percent). Regarding quality of food received 47.6 percent of lactating women respondents perceive that food provided at AWC is of good quality.

Majority of the lactating mothers (41.6 percent) in tribal blocks stated that they were not aware of service of supplementary food at AWC. Highest proportion lactating women respondents who belong to urban blocks mentioned that they do not need food from AWC while 35 percent were not aware of food service at AWC. Almost 23 percent of lactating women in tribal blocks and 21 percent of lactating women in rural blocks cited that AWW does not give food to them.

### Delivery and Post Natal Care Details

Majority of lactating women delivered their last child at PHC/government hospital (75.8 percent) Home deliveries were found to be more common in tribal blocks as compared to rural and urban blocks. On the other hand institutional deliveries at PHC or government hospital is more common in urban and rural blocks. In case of home delivery among lactating women, the proportion of delivery by TBA was higher (70 percent) with marginal differences across the type of blocks.





Among the lactating women respondents it was found that new blade was used in nearly 82 percent of the deliveries. Followed by this 75.8 percent of lactating women mentioned that clean thread was used to tie the umbilical cord while 72.8 percent had used clean cloth to receive the newborn. Nearly 70 percent of deliveries were conducted on clean surface. Block-wise distribution of results indicate high proportion of respondents in urban and rural blocks adopting safe delivery practices as compared to respondents in tribal blocks.

Nearly 39 percent of lactating mothers had received advice on newborn care from health service provider after delivery. Most commonly the advice was received from ANM (17.8 percent) and AWW (11.6 percent). However across the block comparison indicates that advice from doctor is more common in urban blocks while ANM and AWW were the main source of advice in rural blocks. Nearly 68 percent of mothers were advised about exclusive breastfeeding while nearly 59 percent were told about taking extra care of cleanliness for the newborn. Around one fourth of mothers received advice about providing extra warmth to the newborn. Segregated analysis by type of block indicates a higher proportion of mothers in urban blocks received advice on newborn care followed by mothers in rural blocks.

With respect to advice received related to breastfeeding, of those who received any advice on breastfeeding practices more than half of the lactating mothers (53.7 percent) were advised to breastfeed immediately after birth while only 20.2 percent were told to feed the colostrum. Nearly 47 percent of the mothers mentioned that they were advised to feed breast milk exclusively for initial 6 months. It is seen that interaction with regard to breastfeeding behaviour is better in urban and rural blocks as compared to tribal blocks.

As a component of postnatal care, more than 70 percent of the mothers mentioned that newborn was weighed after birth. Weighing of children after birth was found to be more common in urban blocks (84 percent) as compared to rural (70 percent) and tribal blocks (64.3 percent). Nearly 55 percent of the children were weighed on the same day of birth while 29 percent were weighed after 1 day of birth. The practice of weighing children on the day of birth is more common in urban blocks while in tribal blocks most of the children were weighed within first day of birth.

### **Breastfeeding and Complementary Feeding**

99.6 percent of lactating mothers were breastfeeding their child at the time of survey. More than 74 percent of lactating women had fed first milk (colostrum) to the child after birth. Nearly one fourth (25.6 percent) of lactating mothers gave their last-born child something to drink other than breast milk. Such practice is found to be more common in tribal blocks as compared to urban and rural blocks.

Nearly 38 percent of children who are currently under 6 months of age were given complementary feed. Almost 77 percent of children under 6 months were given complementary feeds before completing 3 months. About 44 percent of lactating women mentioned that they had started giving feeds other than breast milk within 1-2 months of birth. Early initiation of complementary feeding in addition to breast milk is common in tribal blocks as compared to rural and urban blocks.

### **Child Illness**

Among the illness fever and cough/cold was most common (23.2 percent and 19.9 percent, respectively), followed by diarrhoea (11.8 percent). About 68 percent of the lactating mothers mentioned that they continued giving the child



breast milk as usual while 26.3 percent fed the child less often than usual. Block wise analysis show the continuing breastfeeding in a usual way is more common in tribal blocks (83.4 percent) as compared to urban blocks (69.7 percent).

### 12A.3 KEY FINDINGS – MOTHER OF 6 MONTH TO 3 YEAR OLD CHILD

#### Awareness of Schemes for Mother of 6 month to 3 year old child

Majority of the mothers of children in the age of 6 month to 3 years mentioned about *Shaktiman Yojana* (74 percent) and *Ladli Lakshmi Yojana* (63.5 percent). Across the block comparison shows that awareness of *Shaktiman Yojana* is higher in urban blocks (83.5 percent) while knowledge about *Ladli Lakshmi Yojana* is higher in tribal blocks (73.3 percent). Awareness about other schemes such as *Mangal Diwas Yojana* (43.3 percent) and *Poorak Poshan Aahar* (8.9 percent) also varies across the blocks, where 49 percent of urban respondents reported knowledge of *Mangal Diwas Yojana* while 13.6 percent in tribal blocks knew about *Poorak Poshan Aahar*. (Refer table-A 5.7 annexed).

Among the respondent mothers of children in the age of 6 month to 3 years, majority (63.5 percent) were receiving benefits under *Poorak Poshan Aahar Yojana* while 51 percent had utilized benefits under *Janani Suraksha Yojana* (JSY). It is evident from the findings that awareness of *Poorak Poshan Aahar Yojana* is low (only 8.9 percent) while the utilization of service is high (63.5 percent) among the beneficiaries. It can be inferred that community is not aware of scheme by its names however they are utilizing and receiving the benefits under the scheme. Utilization of services under *Poorak Poshan Aahar* is more prominent in tribal blocks while JSY is most utilized in rural blocks.

#### Ever Utilization of Services from AWC

Almost 89 percent of mothers of children aged 6 months to 3 years have received immunization services. More than 55 percent of mothers of children aged 6 months to 3 years availed supplementary nutrition from AWC for their child. Among the blocks 57.6 percent of mothers (of children 6 month – 3 yrs) in rural blocks received supplementary nutrition as compared to 54.7 percent of mothers in tribal blocks and 42.5 percent of mothers in urban blocks.

#### Supplementary Nutrition

Nearly 63 percent of the mothers of children of age 6 month to 3 years were receiving food at AWC. Block-wise analyses indicate higher proportion of beneficiaries receiving food at AWC in rural (64.8 percent) and tribal blocks (63.8 percent) as compared to urban blocks (50.2 percent).

Nearly half of the mothers of children of age 6 month to 3 year mentioned that they had received supplementary food at AWC when the child was less than 6 months old. A higher proportion of mothers with low standard of living index had received supplementary food from anganwadi as compared to those who were from medium or high standard of living households. When asked about the views on quantity of food received more than 77.5 percent of mothers of children of age 6 months to 3 years believed that the quantity of food received at AWC were sufficient. Regarding quality of food received 42.3 percent of mothers of children aged 6 month to 3 years rate quality of food as good.

Among the mothers who were not receiving supplementary food from AWC, 27.4 percent of mothers in urban blocks feel that they do not need supplementary food from AWC. Accessibility to AWC appears to be one of the major reasons (as mentioned by 38.6 percent of the mothers) for not availing food at AWC in tribal blocks.



### Delivery and Post Natal Care

Majority of mothers of children 6 month to 3 years (62.3 percent) delivered their last child at PHC/government hospital. Home deliveries were found to be more common in tribal blocks as compared to rural and urban blocks. On the other hand institutional deliveries at PHC or government hospital is more common in urban and rural blocks. Among home deliveries 21.6 percent of deliveries were assisted by TBA while almost 65 percent of deliveries were assisted by ANM or doctor.

Among mother of children of age 6 month to 3 years nearly three fourth of mothers mentioned that they had used five cleans during their last delivery. Around 78 percent of the mothers had mentioned that new blade was used to cut the cord at the time of delivery while 75 percent had used clean thread and clean cloth to receive the baby. Block-wise distribution show considerable differential with respect to use of clean cloth wherein use of clean cloth to receive the baby is higher in urban blocks as compared to tribal blocks.

### Infant and Child Feeding

Almost 86 percent of mothers of children 6 month to 3 years of age were currently breastfeeding their child. 79.6 percent of mothers of children of age 6 month to 3 years had fed first milk (colostrum) to the child after birth. Nearly 26 percent respondent mothers of children in the age of 6 month to 3 years had exclusively breastfed their index child for first 6 months. Block differentials show a higher proportion of mothers in urban blocks (28.8 percent) exclusively breastfeeding for first six months as compared to rural (26.2 percent) and tribal blocks (24.1 percent).

Almost 74 percent of children of age 6 month to 3 year were given any feed other than the breast milk in first 6 months. Initiation of complementary feeding by age of child indicates that 59 percent of children between 6 months to 3 year were given complementary feeds before completing 3 months. Early initiation of complementary feeding in addition to breast milk is common in tribal blocks as compared to rural and urban blocks. Among the mothers of children 6 month to 3 years 51.4 percent mothers had started giving any semi-solid or solid food at the age of 6-8 months while 29.4 percent introduced solid or semi-solid food at the age of less than 6 months. During the first six months most of the children (who are currently in the age group of 6 months to 3 years) were given plain water (74.5 percent) in addition to breast milk. While 23 percent children were given honey/jiggery/sugar, around 16 percent of children were fed with animal milk. It is observed that feeding of animal milk or powdered milk is more common in urban blocks as compared to rural and tribal blocks.

Findings with respect to child feeding practices in last 24 hours reveal that nearly 70 percent of children under 6 month of age were given plain water while almost 24 percent were fed with animal milk along with the breast milk. Block wise comparison shows that feeding of plain water is more common in tribal blocks (69.7 percent) while feeding of animal milk is more prevalent in urban blocks (26.2 percent) as compared to tribal (23.9 percent) and rural (23.1 percent) blocks. The most common type of solid or semi-solid food given to children of 6 months to 3 years were food made from grains including bread or chapatti (92.5 percent), rice or any other grain (72.9 percent), and biscuit (43.3 percent). Very few children consumed fruits (9.1 percent) and vegetables (17.1 percent) that are rich in vitamin A. Milk products (16 percent) are even less commonly given to young children. However among the children of age 3- 6years feeding of biscuits (67 percent), and milk/milk products like cheese and yogurt (34.2 percent) is



more common. Overall comparison across the blocks shows better consumption of complementary food in urban blocks. During the last 24 hours majority of the children were fed 3 to 4 times with either liquid or semi-solid diet.

It is recommended that Infants aged 6-8 months should be fed at least twice (2-3 times) a day and children aged 9-23 months should be fed at least three times (3-4 times) a day along with the breast feed (WHO, 2003). The majority of children of age 9-23 months were reported to have been fed 1-2 times in last 24 hours. With respect to amount of semi-solid food and solid food majority of the children (90.2 percent) were fed a meal of less than 50 grams at one time.

### Child Immunization

84.2 percent of mothers of children 12-23 month child had vaccination card. Possession of vaccination card of is more common in urban blocks as compared to rural and tribal blocks. Coverage of individual vaccine indicates that more than 96 percent children between 12-23 months of age were vaccinated with BCG. A visible decline in polio coverage has been seen with each polio dose i.e. polio-1 to polio-3. The coverage of polio 0 dose (38.8 percent) is much lower as compared to polio 1 (97.9 percent), polio 2 (95.9 percent) and polio 3 (89.1 percent). Relatively, DPT vaccination coverage (88.1 percent) did not show any decline as polio vaccination. However coverage of DPT in tribal blocks (81.8 percent) is considerably low as against rural (90.4 percent) and urban blocks (91.5 percent). The percentage of DPT vaccination between rural and urban locations was found to be more or less similar. Overall, the percentage coverage of children vaccinated against measles was recorded as 84 percent.

Complete immunization has been estimated by taking into account BCG, 3 doses each of polio and DPT and measles vaccine (an indicator followed by NFHS). In the present study 77.3 percent of children in the age group of 12 months to 23 months were found to be completely immunized, as against 40.3 percent of NFHS estimate. Across the blocks urban-rural block analysis do not show much differential, while complete immunization in tribal block is considerably lower (64.4 percent).

Anganwadi utilization of services for vaccination is more common in rural and tribal blocks as compared to urban blocks. Around two-third of the total children (66 percent) were vaccinated at the anganwadi centre; followed by 18 percent at other public service units such as government hospital/PHC/CHC. Urban blocks had fair percentage of children that were vaccinated at places other than anganwadi centres such as other public health care centre (36 percent) and at private clinics or hospitals (17 percent). The dependency on anganwadi centre for vaccination was more in rural (70 percent) and tribal blocks (75 percent).

One of the primary reasons reported by the respondents for not having their child vaccinated was distance of the facility from their home. Remarkably though, none of the urban respondents cited this reason. Urban respondents' primary reason was that they did not feel the need for vaccination and also there is fear of side effects. It is interesting to note that fear of side effects is there in urban (though the number of responses is very less). The other reason cited by the respondents was they did not have time to go (21 percent). 17 percent respondents also reported about the fear of side effects. Distance to the facility is more common reason for not opting for vaccination in rural (42.6 percent) and tribal blocks (39.4 percent).



### Child Illness

When asked about the child feeding practices adopted at the time of illness almost 38 percent of mothers of 6 month to 3 year old child mentioned that they continued breastfeeding when the child was ill while 14.2 percent of the mothers stopped feeding breast milk completely during and after child illness.

## 12A.4 KEY FINDINGS – MOTHER OF 3-6 YEAR OLD CHILD

### Awareness of Schemes for Mother of 3 to 6 year old child

Overall almost 84 percent of beneficiary mothers of children of age 3 to 6 years knew about *Poorak Poshan Aahar* and 34 percent were aware of *Mangal Diwas Yojana*. Further 62.7 percent of the respondents mentioned about *Janani Suraksha Yojana*. Block-wise analysis shows higher awareness of *Mangal Diwas Yojana* and *Janani Suraksha Yojana* in urban blocks (40.8 percent and 69.8 percent, respectively) while awareness of *Poorak Poshan Aahar* is higher in rural blocks (89.5 percent) as compared to other blocks.

Findings show that 77.7 percent of respondent beneficiaries were receiving benefits under any of these schemes. Scheme utilization is found to be better in rural blocks (81.7 percent) as compared to urban (78.1 percent) and tribal blocks (70.9 percent). Majority of the respondent beneficiaries (91.8 percent) were receiving supplementary nutritional diet under *Poorak Poshan Aahar* scheme.

### Ever Utilization of Services from AWC

Nearly 76 percent of the beneficiary mothers of children aged 3 years to 6 years has availed immunization services while 72.2 percent received supplementary nutrition for their children. The differentials across the type of blocks show that higher proportion of respondents availed supplementary nutrition and immunization services in rural blocks followed by urban blocks and tribal blocks. The findings show that overall 29.5 percent of the mothers send their children for pre-school education, while the percentage varies from 31.4 percent in tribal blocks to 28.5 percent in urban blocks.

### Supplementary Nutrition

55 percent of the mothers of children between the age of 3 years to 6 years were receiving food at AWC. Block-wise analysis show higher utilization of supplementary food in rural (57.7 percent) and tribal blocks (57.1 percent) as compared to urban blocks (51.5 percent). It was found that 61.5 percent mothers of children currently in the age of 3-6 years received supplementary nutrition when the child was between 6 months and 3 years of age. Among the mothers who are currently receiving supplementary food from the AWC, nearly 55 percent belong to low standard of living index.

About the views on quantity of food received 65 percent of mothers of children 3 to 6 year were satisfied with the quantity of food received at AWC as supplementary nutrition while 37.4 percent of mothers of children of 3-6 years age rate quality of food as good.

Among mothers of children 3-6 years show that of the mothers who were not availing supplementary nutrition service at AWC nearly 19 percent mentioned that they are not aware of service. This reasons was found to be most common in tribal blocks (24.6 percent) followed by rural blocks (20.2 percent).



### Delivery and Colostrum Feeding

Majority i.e. 54 percent of mothers delivered their index child at home. During home delivery almost 44 percent of deliveries were conducted by TBA. 71.8 percent of mothers of children of age 3-6 years reported that they had fed first milk (colostrum) to the child after birth. Block analysis shows that feeding of colostrum is most prevalent in urban blocks (84.1 percent) followed by rural (73.1 percent) and tribal blocks (51.6 percent).

### Pre-School Education

The findings show that 79 percent of children in the age group of 3 to 6 years were registered with the AWC. Of those who are registered at AWC only 62.6 were going to anganwadi for pre-school education. Block wise findings show that attendance in urban blocks is lower (57.2 percent) as compared to rural (67.8 percent) and tribal blocks (64.2 percent). While nearly 48 percent of children were regular in attending AWC, 40.7 percent children attend to AWC sometimes. Children in tribal and rural blocks were more regular in attending pre-school education services from AWC as compared to urban children. The utilization of preschool education services by caste/tribe indicates greater participation of children who belong to backward class (36 percent) and scheduled tribe (32.4 percent) as compared to scheduled caste population (16.3 percent).

Nearly 72 percent of children at AWC received cooked food while 31 percent received ready to eat food at AWC for spot consumption. On the other hand only 14 percent and 19 percent of the children received cooked and readymade food, respectively, for take away. Block differentials show that hot cooked food for spot consumption is more common in tribal blocks whereas ready to eat food for spot consumption is more common in urban blocks as compared to other blocks.

Food at AWC remains the major motivating factor for children to attend to preschool education at AWC. Around 66 percent of mothers of children of age 3 to 6 year mentioned that provision of food at AWC encourages children to go to the AWC. Only 23 percent of mothers find education as the main driving force for attending to AWC. Almost 30 percent of the mothers mentioned that special food days are celebrated at AWC once in a week while 13.1 percent mentioned that special food days happen once a month. Organization of special food days is found to be more common in urban blocks where 31.3 percent of mothers mentioned about celebration of special food days.

Less than one fifth (17.3 percent) of the children in the age group of 3 to 6 years were receiving preschool education services from AWC. A slightly higher proportion of mothers in tribal blocks (20.9 percent) recognize the utilization of basic education services from anganwadi as compared to 17.9 percent mothers in rural blocks and 14 percent of mothers in urban blocks.

Only 11.5 percent of children under 6 years of age who are covered by an anganwadi center received health check-up at AWC as a part of pre-school education programme. Across the block comparison shows a higher proportion of children in tribal blocks (18.2) had received any health check-up from the AWC as compared to rural (9.7 percent) and urban blocks (8.1 percent). Nearly half of the respondents (48.7 percent) mentioned that their child had ever been weighed at the AWC while only 3 percent had seen the growth chart being prepared by anganwadi for their child. However 6.3 percent of the respondents stated that they had been told about the growth curve of their child.





Differences are observed in utilization of early childhood care and preschool education services by caste categories. As evident from the findings availing of hot cooked food for spot consumption is more prominent among scheduled tribes. With respect to health check up and basic education service utilization is seen to be better among scheduled caste population group.

## 12A.5 KEY FINDINGS – ADOLESCENT GIRLS

### Knowledge of Anganwadi Services

Only 28 percent of adolescents were registered with AWC for services under the adolescent scheme. Differential across the block show a higher proportion of adolescent being registered in tribal blocks (34.7 percent) as compared to urban (29.1 percent) and rural blocks (20.9 percent).

Among adolescents who were registered under the adolescent scheme majority (47.9 percent) of adolescent girls mentioned about supplementary nutrition being distributed at the AWC, followed by nutrition and health education (27.8 percent) and iron folic acid tablets (25 percent). Block wise comparison shows service delivery of supplementary nutrition and NHE under adolescent scheme is better in urban blocks wherein 58 percent and 36.1 percent of adolescents, respectively, mentioned about receiving the services. On the other hand distribution of iron folic acid tablets is observed to be more common in tribal blocks (29.7 percent) as compared to rural (26.6 percent) and urban blocks (21.5 percent).

### Knowledge of Schemes for Adolescent Girls

Knowledge related to various schemes under ICDS is limited among adolescent girls. Very few adolescents i.e. 7.9 percent and 2.4 percent could recognize *Ladli Lakshmi Yojana* and *Kishori Shakti Yojana*. For majority of the respondents (68.7 percent) friends/relatives/neighbor was the prime source of information followed by AWW (45.1 percent). Few respondents (13.7 percent) mentioned about teachers as the source of information about the schemes. In addition to inter-personal sources, mass media sources like radio and TV were most commonly mentioned by 22.5 percent of the adolescent respondents. Block wise comparison indicates higher proportion of respondents mentioning inter-personal and mass media sources in urban blocks as compared to rural and urban blocks.

### Food Intake

Majority (92 percent) of the adolescents had any bread or chapatti during the day or night before the survey. While 66.6 percent and 68.2 percent of the adolescents had rice/grain and dal/pulses, respectively, only 28.9 percent reportedly ate leafy vegetables. Consumption of fruits, milk, meat/fish/eggs was relatively very low. Comparison of diet pattern across the type of blocks show that consumption of fruits and other eatables rich in vitamin A and C is better in urban blocks, followed by rural blocks. During the last 7 days nearly 5 percent of the respondents have two meals in a day while 47 percent had food three times a day. Further to this, almost 43 percent of the respondents also had snacks between the meals.

### Iron Supplementation

More than 95 percent of the respondents were not taking IFA tablets while only 4.5 percent reportedly consume IFA either daily or once in a week. The main source of IFA was found to be AWW as 74.3 percent of the adolescents take IFA from AWW, followed by 22.3 percent of adolescents who received IFA from ANM. Among all the blocks intake of



IFA is found to be better in urban blocks. AWW and ANM remain the most common source for taking IFA in urban blocks as compared to rural and tribal blocks. IFA consumption by adolescents is mostly (38 percent) monitored by mothers or mother-in-laws. Nearly 34 percent of the adolescents mentioned that AWW monitors their intake of iron tablets while 33 percent of the adolescents watch their iron consumption themselves. Further, nearly 16 percent of adolescents had undergone blood test for assessing anaemia status while 23 percent had taken blood test for malaria. Comparison across the blocks shows marginal differences in proportions who had undergone anaemia and malaria testing in urban (16.7 percent and 25.6 percent, respectively) and tribal blocks (17.1 percent and 25.8 percent, respectively).

### **Awareness about Health and Nutrition**

Among the surveyed adolescents nearly 9 percent of the adolescent girls in the anganwadi area received training from AWW. A relatively higher proportion of respondents from urban blocks (12.9 percent) were trained as compared to rural (6.1 percent) and tribal blocks (5.4). Most of the adolescents (11.7 percent) received training on issues of health and nutrition, followed by family life education (54.9 percent) and life skills (33.2 percent). Regarding knowledge on issues related to reproductive and child health 18.2 percent of adolescents could identify reasons for low birth weight. The most commonly reasons mentioned for low birth weight was iron deficiency during pregnancy (as cited by 64.9 percent of the respondents). However, only 26 percent of the respondents could cite desirable weight of newborn correctly.

69.6 percent of the adolescents understand that it is important to consume green leafy vegetables, while 68.7 percent adolescents mentioned about consumption of fruits for increasing blood. Besides, 22.2 percent and 19.5 percent of adolescents considered intake of cereals and pulses, respectively, as vital during pregnancy. Only one-tenth of the respondents mentioned about intake of iron supplementation in the form of IFA tablet/syrup. Segregated analysis at the level of type of block indicate higher knowledge about consumption of green leafy vegetables and fruits in urban blocks (78.8 percent and 79.8 percent) as compared to rural (63.9 percent and 62.9 percent) and tribal blocks (57.8 percent and 53.4 percent).

With regard to knowledge about initiation of breastfeeding about 33 percent of the adolescent respondents recognize that breastfeeding should be initiated within one hour of birth. More than half of the respondents (52.6 percent) mentioned that feeding of first milk of mother is important for the newborn. Among the reasons cited for feeding of colostrum, majority (47.8 percent) mentioned that it is important for the health of child while others mentioned about its role in triggering lactation (37.6 percent). Feeding of colostrum as a tool for improving immunity against diseases and high nutritional values of colostrum were clearly recognized by 35.3 percent and 36.9 percent of the respondents, respectively. Only 50 percent of the adolescents could mention that a child should be exclusively breastfed up to the age of 6 months. The awareness on exclusive breastfeeding up to 6 months is relatively high in urban blocks (56.8 percent) as compared to rural blocks (46.2 percent) and tribal blocks (39.3 percent).

While 28.6 percent of the adolescents were aware of immunization schedule for children, only 9.9 percent of the adolescents mentioned about immunization schedule for pregnant women. Analysis across the blocks indicates relatively higher awareness about child immunization as well as pregnant women immunization in tribal blocks. Further, with respect to knowledge pertaining to child health 61.7 percent of the adolescents were aware of ORS treatment if the child is suffering from diarrhoea. Knowledge of ORS treatment for diarrhoea is considerably higher in urban blocks (78.6 percent) as compared to rural (51.2 percent) and tribal blocks (39.5 percent)





Nearly 40 percent of the adolescents ever heard of HIV/AIDS. A higher proportion of respondents had ever heard of HIV/AIDS in urban blocks (55.5 percent) as compared to rural and tribal blocks (20 percent). Most of the adolescents (57.9 percent) recognized that use of sterilized needles and transfusion of safe blood provides protection against HIV infection while 38.1 percent mentioned about being faithful to one uninfected sexual partners protects from getting infected with HIV.

The knowledge on family planning methods is relatively lower among the adolescents as only 22.2 percent of adolescents were aware of any family planning method. Among the type of methods female sterilization is most commonly mentioned by more than 79 percent of the respondents, followed by oral contraceptive pills (50.2 percent). Only 27.6 percent and 20.9 percent of the adolescent girls cited condoms and copper-T, respectively.

### **Perceptions on Age at marriage**

Almost 72 percent of the adolescent girls could mention about the recommended age at marriage for boys as 21 years while 89.7 percent of the adolescents were aware of recommended age at marriage for girls as 18 years. It is observed that knowledge of recommended age at marriage is higher in case of urban blocks followed by rural and tribal blocks.

### **Hygiene and Sanitation**

More than 98 percent of the adolescent girls mentioned that they take bath regularly while 92 percent of the adolescent girls wash their hand with soap or ash before or after meals. Analysis across the blocks with respect to hand washing practices show marginal variations. Nearly 50 percent of the adolescent respondents use toilet (personal toilet or community toilet or shared toilet) for defecation. Use of toilet is much more common in urban blocks in comparison to rural and tribal blocks.



## Chapter XIII

### Diagnostics on Service Delivery Mechanism

#### 13.1 Infrastructure of AWCs

##### 13.1.1 Building of Anganwadi

At present in Madhya Pradesh there are 69,238 AWCs (As of MPR, May 2009, the number of Anganwadi centre has gone up to 78929 and the number of mini-Anganwadi has reached 9820), whereas total number of constructed/under construction AWCs is only 18827. According to the department of ICDS, to bridge the gap, Panchayat is going to construct buildings in 27 districts under backward grant scheme, whereas in 21 districts, construction of 3343 buildings have been planned from the fund of state planning.

Anganwadi centre is generally constructed in such a place where community can easily access the services of AWC, especially children of weaker sections of the society. In the study it was found that availability of Anganwadi building is a matter of concern as most of the Anganwadi's (53.6 percent out of 192 Anganwadi) were found to be running in rented buildings. Some (12 percent) of the centers were found to be constructed by Panchayat, where as few (14.1 percent) were found running in the building constructed by the state government. Moreover, some of the Anganwadi's were found running in the house of AWW and in the school building. Most (50.5 percent) of the structures of Anganwadi were found to be Pucca where as 21.4 percent structure were Semi-Pucca.

Place of Anganwadi						Type of building			Drinking water sources				Toilet facilities			
Rented building	Panchayat/ Community building	Building constructed by State Govt	AWW's own house	School building	Others	Kuchcha	Pucca	Semi-pucca	Water tap/Hand pump	Well	Other	No facility	Flush toilet	Ordinary toilet	Pit latrine	No facility
53.6	12.0	14.1	7.8	7.3	5.2	28.1	50.5	21.4	66.5	5.8	4.7	22.5	11.5	18.2	10. 4	59.9

Even though the construction of Anganwadi centre is an important issue and needs to be budgeted, maintenance cost of the existing structures needs to be incorporated in the budget. Two AWCs, where the experts visited during the study in district Mandla (Village - Kanchangaon and Kawadongri), one had leaky roof and the other had a very rocky ground where loose stones were lying around.

##### 13.1.2 Drinking Water Facility

Availability of safe drinking water in the Anganwadi center needs to be ensured for the safety of the children from the water born diseases like diarrhea, cholera etc. Out of total 225 AWCs, potable drinking water was available in 77



percent of Anaganwadi Centres; the biggest sources of potable drinking water were tap and hand-pumps (66.5 percent). However, there were no water sources in 22.5 percent of the Anganwadi Centers.

### 13.1.3 Toilets

Availability of toilet facility in the AWC was also not very encouraging as approximately 60 percent of the centers had no toilet facilities. Ordinary toilets were found in 18.2 percent of AWCs were as 11.5 percent of the AWWs reported having flush toilets at their centers.

## 13.2 Supplies

### 13.2.1 Pre-school kit

Non - formal pre-school education of the children between 3 to 6 years of age is one of the most important activities of AWW. It focuses on holistic development of the child and provides a stimulating environment for his/her physical, cognitive, and psychosocial development. Regarding the availability of pre-school education kits, most of the AWW (66.7percent) affirmed that they have the pre-school kits in their centers; however, some (37.5 percent) of them informed that kits with them are not sufficient in numbers as they were supplied long time back. 33.3 percent also informed that they don't have pre-school kits in their Anganwadi. 60.2 percent of the AWW who had kits in their centre have had received them more than two years ago where as 18.8 percent of AWCs received in last 2 years. 56 percent of AWCs were found to have outdoor – indoor playing materials.

### 13.2.2 IEC/training materials

IEC aims at sustainable behavioural and attitudinal change of the society for the holistic development of the child. Objectives of IEC is to create awareness and build image of ICDS programme, stimulate demand for ICDS services, affect and sustain behavioural and attitudinal changes in child rearing, nutrition and health care practices and elicit sustained community participation. Use of communication materials/aids helps in better understanding of the messages. Out of 192 AWCs, IECs were available in 47.9 percent of the centers. AWWs also reported that there were no supplies of the IEC materials since the couple of years.

### 13.2.3 Medicine kits

AWW is supposed to provide medicine for treating common ailments of children and first aid in case of injuries and accidents. For this, medicine kit has been provisioned for all the AWCs and AWWs have been orientated on the use of medicine. The medicine kit comprises of paracetamol tablets, paracetamol syrup, mebendazole tablets, benzyl benzoate (for application), chloramphenicol eye ointment, sulphacetamide sodium eye drops, gentian violet, povidine iodine ointment; and absorbent cotton roll & cotton bandage. In the field availability of kits was very poor. Of 192 AWCs, kits were available in 22.4 percent of AWCs. Though ANM use to provide some necessary medicine to AWCs, in many Anganwadi the medicine were reported to cross the expiry date. A budgetary expenditure detail reveals that since couple of year's department has not provisioned any amount to purchase the medicine. However, department of ICDS, informed that a fresh order has been issued for the purchase of medicine and in coming days kits would be made available in all the centers.



### 13.2.4 Growth Charts

Growth Chart is used to assess the growth of the child using 'weight-for-age' as an indicator. It is a visual record of the growth pattern of a child. It determines the grades of malnutrition of a child, identifies beneficiaries for supplementary feeding, and is used for imparting nutrition and health education to mothers. Growth charts were available in 58.3 percent of the AWCs, out of which in 44.8 percent of the AWC it was not in sufficient numbers. ICDS has introduced new growth charts for the boys and girls and now for effective growth monitoring the first and foremost step of the department would be to place the charts at all centres as early as possible.

### 13.3 Equipments

#### 13.3.1 Weighing Machine

Growth monitoring of the children is done through the growth charts and weight records. Out of 192 AWCs, both the baby and adult weighing machines were available in 45.3 percent of the Anganwadi centers where as in most of the

Availability of weighing scale at AWC				Accuracy of weighing machine	
Only baby weighing scale	Only adult weighing scale	Both adult & baby scales	None	Yes	No
45.8	5.7	45.3	3.1	63.6	36.4

Anganwadi (45.8 percent) centers, only the baby weighing machines were available. 5.7 percent of AWCs reported to have only the adult weighing machines. On the other hand, weighing machines were found to be perfectly functioning at 63.6

percent in the centers. Most of the AWWs who didn't have weighing machine or whose machine was out of order informed that while filling growth chart they use to bring machine from nearest AWCs.

### 13.4 Supplementary Nutrition (SN)

Supplementary Nutrition Programme is being carried out in 69238 functioning AWCs covering 10524249 beneficiaries. On April 2007, local food model was initiated at all ICDS projects with a separate arrangement for 06 months to 3 years of children, 3 years to 6 years children and pregnant and lactating women. For 06 months to 3 years of children, weaning food has been provisioned from MP agro, whereas for the rest of the target groups, locally available food has been planned (but, now packaged Take Home Ration (THR) is being provided to 0-3 years age group of children as well as to the pregnant and lactating women). It was envisaged that by doing this, interest of the children towards Anganwadi will increase, which would ensure participation of the community in Anganwadi. For putting the local food model into practice, a list of food menu with its nutritional value was provided to each AWWs.



*In order to provide fresh cooked food under Midday Meal Scheme, Rural Development Department and Women and Child Development Department have launched Sanjha Chulha Yojana on November 1, 2009. Under Midday Meal Scheme, the freshly cooked food prepared in schools' kitchen sheds by local self-help groups would now also be served to the children ranging from 3 to 6 years of age groups and children ranging from six months to 3 years, 3 to 6 years, pregnant women and lactating mothers on Mangal Diwas. Responsibility of food distribution under Sanjha Chulha Yojana rests with the Anganwadi workers. Selection of the Self Help Group for the preparation of food is done by the Panchayat. After getting allotment from the ICDS, payment of the SHG would be done by the Panchayat. It has been planned that at the block level the same committee, which monitors the Mid Day Meal programme would also monitor the SCY. Under Supplementary Nutrition Programme, after getting the wheat/rice quota from govt. at BPL rate, allotment of food grain would be done by the Women and Child development dept. to the PDS. RO would be then issued on the estimated food to SHGs. SHG collects this quota at BPL rate from PDS shop.*

*Ministry of women and child development, memorandum no. F 3-2/09/50-2 dtd. 1-10-2009, Guideline on provisioning food for the 3 to 6 years age group of children through Sanja Chulha, Bhopal, MP, India*

#### 13.4.1 Procurement and Supply

Procurement and supply of supplementary nutrition (Dalia, Panjari and Poorak Poshan Aahar) is carried out by MP Agro (a semi govt. Organisation) and SHGs in the district. MP Agro which is assigned to supply Dalia and Panjari orders the requirement raised by ICDS to three agencies (Nutri-food, Indore, Agrotic, Mandideep and MP agro food, Mandideep. In some districts preparation of dalia has been assigned to SHGs) where as for the supply of Poorak Poshan Aahar, responsibility lies with the SHGs appointed by the DPO. Wheat for SN is procured by SHG from PDS at the rate supplied to the BPL families. Out of 38 CDPOs, most (80 percent) reported that the procurement of SN is done by the agency identified by the department. However, according to them the main problem with SN is its inconsistent supply. 39.5 percent informed that the supply of food material is irregular and reaches the project office after many days of requisition. So to keep regular supply of SN to AWCs they have to maintain an inventory of stock. Some (30 percent) of CDPO finds transportation of SN to AWCs/Circle as another major problem. In 32 percent of blocks, the ration was use to sent directly to AWCs, where as 29 percent of CDPOs reported that the SN material transported to their office from the source of procurement.

*Involvement of SHGs for food distribution has been a positive step as women realized the importance for being a member of SHG'. The AWW and PRI members keeps close eye on the distribution of food meant for the children. This has helped the children in getting hot, fresh and nutritious food. But the basic constrains in continuing the supply of food to AWCs is that the SHGs don't get funds on time. As SHGs are now one of the major stakeholders in supply chain management, they should also be involved in the planning process.*

**(NGO, Implementing ICDS project)**

#### 13.4.2 Storage

At project level storage of SN is an issue for CDPOs. 55.3 percent of CDPO informed that they don't have proper storage facility to keep the food materials safe, whereas some (29 percent) CDPOs informed that available space is not sufficient to keep the materials. 13 percent of CDPOs reported infestation is another problem in storing the ration.



### 13.4.3 Availability of ration at AWC level

Out of 192 AWWs, 29.7 percent reported that they had SN for at least one month, whereas for 14.6 percent of AWWs, SN was for more than one month. 22.4 percent of the AWCs were found with no food stock at their centre.

### 13.4.4 Quality, Quantity and Acceptance of Food by the Community

During the field survey, the investigators also observed cooking of food and tested the food to check the quality. According to 51.6 percent of AWCs the quality of the food was good, while 36.5 percent, reported the quality as average. According to them in 69.3 percent of AWCs, food was sufficient in quantity were as in 19.8 percent of the AWCs, food was less than required. Regarding acceptance of ration by the beneficiaries, most (67 percent) of the Supervisors affirmed that as children and women come from different strata of society; mostly from disadvantaged groups, acceptance of SN is not an issue. However, 33 percent of Supervisor informed that all the supplementary food are not acceptable by the beneficiaries. Some of the foods are less tasty and of poor quality. 81.3 percent of the AWCs reported to have provisions for the Take Home Ration (THR). Most of the AWWs (55.9 percent) shared that they have provisioned THR at their centre only to comply the guideline of the state. 33.5 percent shared that as the children cannot consume all the food at the centre, they take the THR to their home and share with their family members.

### 13.4.5 Monitoring of the Ration

To monitor the quality and to manage the supply of SN, different arrangements have been placed at different levels. At Anganwadi level, Matritav Samiti has been constituted which along with CDPO, Supervisor and Panchayat Samiti monitors both the finance and the function of AWCs. AWWs are supposed to display the day wise menu of SN and the status of fund at display board. At block level, a committee constituted of CDPO, CEO – Janpad and other govt. officials, as well as representative of Janpad panchayat are supposed to meet every month to discuss the quality and the continuity of the food supply to AWCs. At district level, collector heads the committee constituted to monitor quality and regularity of food supply, and review the programme in every quarter.



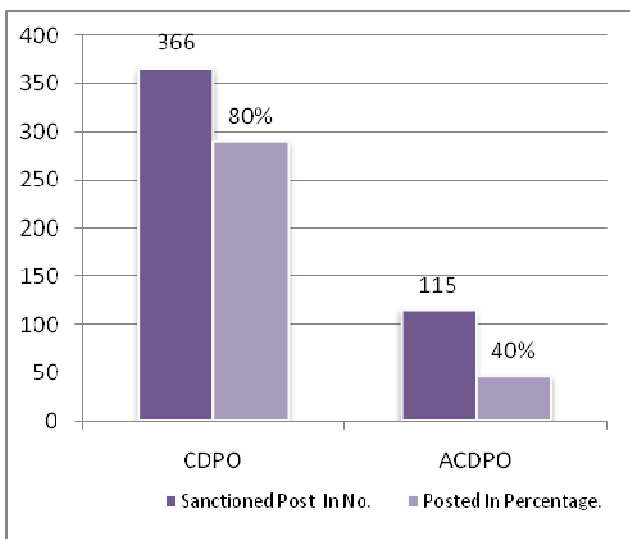
## Chapter XIV Programme Management

### 14.1 Human Resources

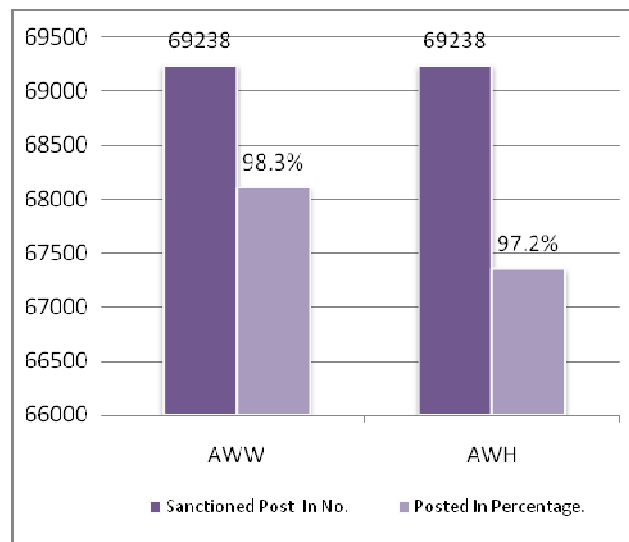
#### 14.1.1 CDPO and ACDPOs

CDPO is the authorized official at block (project) level to implement ICDS. In Madhya Pradesh, the total number of CDPO is 366 (Source: MRP – May 2009, ICDS department, MP<sup>7</sup>). These CDPOs are in-charge of 69238 Anganwadis, however, this number is around 20 percent short of the required number of CDPOs to efficiently run all the Anganwadi centres. In blocks where there are no CDPOs, work is to be assigned to ACDPOs, or any other government functionaries (as additional charge). In MP, there are total 115 sanctioned posts of ACDPOs however, at present only 40 percent has been filled up.

**Chart14.1: Sanctioned and Posted Project functionaries**



**Chart 14.2 Sanctioned and Posted AWW and AWH**



The AWW and AWH are the other key functionaries of ICDS at the centre level. The sanctioned post for both the positions were found to be almost filled up, that is 98.3 percent of the sanctioned post was found to be filled up in the case of AWW and 97.2 percent of sanctioned post for the AWH.

#### 14.1.2 Profile & Qualification of AWWs

In congruence with the mandate of ICDS, the Anganwadi Workers (AWW) have to be recruited from the same village/ward. In cases where the Gram Panchayat (which is the institution entrusted with the task to identify AWWs), fails to find qualified candidates from the same village, it may identify and recommend candidates from nearby villages. Data from the study shows that, out of the 192 AWWs contacted, 83.9 percent were found to be from the

<sup>7</sup> ICDS, Department of Women and Child Development (2009), Monthly Progress Report, Bhopal, Madhya Pradesh <http://mpwcd.nic.in/mpr.htm> (accessed on 5/10/2009)





same village. In terms of educational qualifications, around one-third of the AWWs (32.2 percent) had completed higher secondary level while more than one-sixth (17.7 percent) had completed secondary education. Also, 15.1 percent of the AWWs were either graduate or above. Substantial proportions (70.8 percent) of the AWWs were found to have more three years of work experience.

### 14.1.3 Anganwadi Helpers

Anganwadi helper (*Sahayika*) is mandated to assist the AWW for the smooth and efficient functioning of the centre. The AWH is supposed to work for 4 hours a day to help the AWW in cooking and providing food to the children and mothers. She is also responsible for cleanliness of Anganwadi premises, fetching water for the centre, cleanliness of small children and collection of small children from villages at the Anganwadi. Of the 190 AWHs, 89 percent belonged to the same village where the Anganwadi was situated.

## 14.2 Capacity Development & Training

### 14.2.1 Training Institutions

Training within ICDS is the key intervention to equip programme officials, functionaries, partners and other related organizations and individuals towards achieving the objectives. Training of functionaries at all levels has been built into the programme design. Training of CDPOs is conducted by NIPCCD where as training of Supervisors and Anganwadi Workers is conducted in separate training institutions called Middle Level Training Centres (MLTCs) and Anganwadi Workers Training Centres (AWTCs) respectively.

Table 14.1: Training of ICDS Functionaries and Trainers		
Category	Duration Days	Training Institute
<b>ICDS Functionaries</b>		
JTC for CDPOs / ACDPOs	32	NIPCCD - Head Quarters (HQs), Regional Centres (RCs) & State Training Institutes (STIs)
JTC for Supervisors	32	Middle Level Training Centres (MLTCs)
JTC for AWWs	32	Anganwadi Workers Training Centres (AWTCs)
Induction Train. For CDPO/ACDPO	7	NIPCCD - HQs, RCs and STIs
Induction Train. Of Supervisors	7	MLTCs
Induction Training of AWWs	8	AWTCs
Orientation Training of Helpers	8	AWTCs
Refresher Training of CDPOs/ACDPOs	7	NIPCCD HQs, RCs and STIs
Refresher Train. of Supervisors	7	MLTCs
Refresher Training of AWWs	6	AWTCs
Refresher Training of Helpers	5	AWTCs
<b>Trainers of AWTCs and MLTCs</b>		
Orientation Training of Instructors of MLTCs	12	NIPCCD HQs & RCs
Orientation Training Instructors of AWTCs	11	MLTCs / STIs
Refresher Course for instructor of MLTCs/ STIs	7	NIPCCD HQs & RCs
Refresher Course for Instructors of AWTCs	7	MLTCs and STIs
<b>Source - NIPSID – Hand book for ICDS</b>		





Table 14.2: Status of AWTCs and MLTCs in MP

Training centers	No. Sanctioned by GOI	No. of operational as on date			No. of centers closed
		Run By NGOs	Run By Govt.	Total	
Anganwadi Training Centre (AWTC)	53	15	10	25	6
Middle Level Training center (MCTC)	4	2	0	2	2

(Source: ICDS, Dept. of WCD, Bhopal)

In Madhya Pradesh a total of 53 AWTCs have been sanctioned, of which at present only 25 are operational. Out of 25 operational AWTCs, 15 AWTCs are operated by NGOs while the other 10 AWTCs run by the state government. In case of MCTCs, out of the four sanctioned MCTCs only two are currently operational.

#### 14.2.2 Training of CDPO, Supervisor and AWW

ICDS functionaries have to go through different types of training viz. induction, orientation, job and refresher. It is mandatory for all functionaries to go through the job training after joining the project. Also, each official is required to undergo refresher module once in every two year.

Table 14.3: Status of Job Training

Sl. No	Type of Functionaries	No. of person trained till 31-3-09	No. of persons are in position but untrained as on 31-3-09	No. of persons joined/due to join after 31-3-09	Persons untrained as date 1-4-2009
1	CDPO/ACDPO	272	--	--	--
2	Supervisors	1517	1405	--	--
3	AWW	65433	7569	1800	9256
4	AWH	67898	6625	2000	8320

(Source: ICDS, Dept. of WCD, Bhopal)

The job training course is for 30 days duration with 26 working days. Data available with the department illustrates that all the CDPOs/ACDPOs have gone through the job training. In case of AWWs and AWHs, the number of untrained personnel is 9,256 and 8,320 respectively. It has also been found that 328 Supervisors, 3631 AWWs and 10630 AWHs haven't gone through the refresher training.

Primary data reveals that of 38 CDPOs, 89.5 percent have gone through the training. 62 percent were trained both on job as well as refresher trainings – while 38 percent had received only the job training. In case of supervisors, 70 percent had gone through both job and refresher trainings, where as 20 percent had gone through the job training. 69 percent of AWWs had received both job and refresher trainings, while rest have received only the job training. Most functionaries (65 percent) perceived that the trainings were useful in enhancing their skills for pre-school activities, household survey and immunization of the beneficiaries. Almost all the AWWs (99 percent) informed that the trainings have been useful in delivery of services.



### 14.2.3 Anganwadi Workers Training Centers – AWTCs

In the context of ICDS, the most crucial role lies with the AWWs as they are the frontline functionaries who identify the beneficiaries as well as deliver services. As stated earlier, the AWTCs have been established in different districts of state to build capacities and to enhance the skills and the knowledge of AWWs/AWHs. In this study, a detail interaction was carried out with the office bearers of 17 AWTCs.

According to the respondents, the objective behind the formation of these training centers was to impart knowledge and augment skills relevant to ICDS and its management to the AWWs. According to them, the AWTCs follow the syllabus prescribed by ICDS and UNICEF. Group work, written exercises and audio video aids are used as methods during the trainings. Observation of the training institutions reveals that almost all the centres have sufficient space for classrooms, hall, dining hall, kitchen also as almost all the centres have clean and hygienic living room.

According to the office bearers, the major problem faced by the training centers is the unavailability of funds/delay in transfer of funds from the department. Almost all the office bearers informed that payments are made only after submission of final bills/ expenditure statements, at the end of the financial year. This is despite the fact that there are provisions of quarterly payment as well as advance payment for the Training Centers against its expenditure incurred. According to the in-charge of the training centers, this affects the functioning of the training centres adversely as they have to go for credit to support their routine expenses such as electricity, fuel, water and food. Some centers also reported delayed payment of DA for AWWs.

## 14.3 Monitoring & Supervision

### 14.3.1 Central Level

Ministry of Women and Child Development (MWCD) has the overall responsibility of monitoring the ICDS. There exists a Central Level ICDS Monitoring Unit within the Ministry which is responsible for collection and analysis of periodic work reports received from states in the prescribed formats. States are required to send consolidated reports for the state by 17<sup>th</sup> day of the following month.

The existing status of monitoring of the following services is taken into account at the monthly review:

- a) Supplementary Nutrition: No. of Beneficiaries (Children 6 months to 6 years and pregnant & lactating mothers) for supplementary nutrition
- b) Pre-School Education - No. of Beneficiaries (Children 3-6 years) attending pre-school education
- c) Immunization, Health Check-up and Referral services - Ministry of Health and Family Welfare monitor on health indicators relating to immunization, health check-up and referrals services under the Scheme.
- d) Nutrition and Health Education (This service is not monitored at the central level. State Government monitors up to State level in the existing MIS System).
- e) No. of ICDS Projects and Anganwadi Centres (AWCs) w.r.t. targeted no. of ICDS projects and AWCs.

The information received in the prescribed formats are compiled, processed and analyzed at the central level on a quarterly basis. The progress and shortfalls indicated in the reports are reviewed by the Ministry with the State Governments regularly.



### 14.3.2 State Level

Quantitative information collected in MPR/ HPR are compiled at the State level for all the projects. MPR captures information on the number of beneficiaries getting supplementary nutrition, no. of children for pre-school education, field visit by ICDS functionaries (Supervisors, CDPO/ ACDPO etc.), numbers of meetings on nutrition and health education (NHED).

### 14.3.3 Block Level

At the block level, CDPO, the in-charge of ICDS projects supervise and guide the work of the entire project team, including supervisors and AWWs and ensures proper maintenance of registers and records at both Project and AWC level. Each CDPO is required to submit MPR/ HPR on regular basis. The reporting formats are in congruence with AWW's MPR/ HPR. MPR also provides information on vacant positions of ICDS functionaries at block and AWC levels. All CDPOs are required to send the Monthly Progress Report (MPR) for each month by 7<sup>th</sup> day of the following month to the departments. Similarly, CDPOs are also required to send Half-yearly Progress Report (HPR) by 7<sup>th</sup> April and 7<sup>th</sup> October every year.

### *Field Monitoring*

A CDPO is required to visit AWCs under his/ her work area regularly. He/she is supposed to visit at least 30 centers in a month. Out of 38 CDPOs who were interviewed, nearly three-fourths (73.7 percent) informed that they normally meet the target, where as some (18.4 percent) are able to meet the same only occasionally. However, 7.9 percent of the CDPOs reported that they had never met the target. According to them, excessive involvements in administrative work as well as high target levels are some of the reasons cited for not meeting the target.

During the visit of AWCs, for most (87 percent) of the CDPOs, review and verification of records and registers are of utmost priority. 68 percent of the CDPOs also reported that during the visit they use to discuss day to day issues/problems faced by the AWWs where as 45 percent shared that they use to physically verify the stock of Supplementary Nutrition. 26 percent of the CDPOs shared that they use the field visits as a chance to demonstrate activities to AWWs for their learning and development, while 50 percent of CDPOs shared that they use to interact with the community and the beneficiaries.

### 14.3.4 Village Level (Sector and Anganwadi Level)

In the existing Management Information System, records and registers have been prescribed for reporting of Anganwadi i.e. village level. The monthly and half-yearly progress reports of Anganwadi Workers have also been prescribed. AWW is required to send Monthly Progress Report (MPR) by 7<sup>th</sup> day of the following month to the respective CDPO. Similarly, AWW is also required to send half-yearly progress report (HPR) to CDPO by 7<sup>th</sup> April and 7<sup>th</sup> October of every year. The Supervisor is supposed to guide Anganwadi workers in conducting household surveys, updating survey data and conducting various programmes. In general, each Supervisor has the responsibility of supervising 25-30 Anganwadi workers.



**Box No. 1: Records and Registers at Anganwadi Centers**

- **Anganwadi Survey Register** – To Record Individual family and Monthly Summary record of all families
- **Register of Services for Pregnant Women and Lactating Mothers** – To maintain records of supplementary nutrition provided, Iron & folic acid tablets given, TT immunization, health check-up, and date of delivery of pregnant women. Every month the record is updated.
- **Register of Services for Children** – To record Supplementary Nutrition and Preschool Education.
- **Register of Immunization, Iron & Folic Acid and Vitamin A Supplementation** – To record immunization details of children, Vitamin A drops, and also to record distribution of Iron and Folic acid tablets given to children.
- **Birth & Death Register**- To keep records of total birth and death in the area for children upto 6 years of age.
- **Anganwadi Food Stock Register** – Monthly food inventory report.
- **Attendance Register**
- **Other Stock Register** - To maintain records for any equipment or material supplied by the State Government and the frequency of replenishment/ replacement.
- **Mahila Mandal Register** - Register used for recording number of meetings organized and number.
- **Supervision-cum** -Visitor's Book
- **Daily Diary**
- **Growth Chart Register** for Growth Monitoring.
- **Mothers & Child Card** - To keep record related to health & well being of mother and child.
- **Ladli Laxmi Yojna Register**
- **Girl Child School Entrance Register**
- **Mangal Diwas Register**
- **Matritav Shayogini Samiti Register**

Out of total 140 supervisors, 42 percent were assigned to supervise more than 30 Anganwadi centers, 46.4 percent were assigned 25 centers and 11.4 percent were given the charge of 16 AWCs. 44.3 percent Supervisors were found to visit the same AWCs under his/her circle once every month, where as 30 percent of the supervisors were visiting AWCs once in two months. Some (22.1 percent) Supervisors made fortnightly whereas every week only 8 percent supervisors managed to visit the same AWCs. As per the guidelines and instructions from the State Government, AWW has to maintain records and registers for the services offered at AWC. Records and registers

help to assess the outreach and utilization of services, identify areas that needed improvement, generate relevant data related to nutrition and health indicators of women and children and facilitate more effective supervision. The above box depicts the types of records and registers kept in the Anganwadi Centers.

On being asked about the visit of supervisors, most (84.2 percent) of the AWWs reported that there had been the visit of supervisor in the last month. According to most of the AWWs, during the visit the Supervisors use to check and update records (75.5 percent) and also check the available food stock (72.9 percent) at the centre. Some supervisors also go for home visits and support AWWs in filling the reporting formats. It is evident from the above data that visits of Supervisors to their respective Anganwadi centres are less frequent than the requisite visit required and are mostly limited to examining records and assessing SNP rather than building capacity of AWWs by sharing knowledge/ information and hand-holding support.



## 14.4 Skills, Knowledge & Problems of Frontline Personnel

### 14.4.1 Nutrition and Health Education for Pregnant Women

An AWW is expected to provide Nutrition and Health Education (NHE) to pregnant and lactating women so that the women can themselves take care of their own health and the nutritional needs of their siblings. For this, AWW is supposed to use fixed days for immunization session, mother-child day, growth monitoring day, small group meetings of mothers/mahila mandals/community, home visits, and other such forums for imparting NHE. During the field visits the researchers interviewed the AWWs and assessed their knowledge and practices on NHE.

On being asked about the kind of advice given to pregnant mothers during the first six month of pregnancy, 70 percent of AWWs informed that they generally advice the expecting mothers to take adequate and frequent food, whereas more than 50 percent informed that they advice TT injection, consumption of at least 100 IFA tablets and adequate rest to the pregnant mothers. Around 50 percent of AWWs also informed that they advices for supplementary nutrition from the AWCs.

### 14.4.2 Early Childhood Care to Lactating Mothers

More than 60 percent of the AWWs informed that they strongly advised the pregnant mothers to provide colostrums to the newly born babies, exclusive breast feeding for the first six months and timely immunization of the babies. Few AWWs also suggested the mothers about the initiation of timely complementary feeding and growth monitoring of the child.

Majority of AWWs (88 percent) were aware that pregnant women should consume food twice in quantity as compared to their normal diet. Almost all AWWs (95 percent) were aware that breast feeding must be done within 1 hour of childbirth as the first milk (colostrums) is crucial to develop immunity against diseases in new born. Nearly half (43 percent) of the AWWs also shared that the colostrums is rich in vitamin A and protein and so good for the health of the infant. Most (86 percent) of the AWWs were also clear that exclusive breast feeding should continue till the child reaches up to six months.

However, there was some confusion regarding the age at which semi-solid food may be given to the child. While most AWWs reported the age to be six months, some (28 percent) said that the same should start only after the child reaches seven months of age.

Around 84 percent AWWs believed that children suffering from diarrhea should be given ORS. Nearly half (43 percent) of them also believed that breastfeeding should not be stopped at the time of diarrhea and if condition deteriorates further, then the child should be taken to the ANM/ Doctor immediately. In case of acute respiratory infection most (82 percent) AWW believe that the parents should not compromise and consult the ANM/ Doctor immediately. The Anganwadi workers were found to be well aware of health issues especially related to mother and child health care.

### 14.4.3 Home Visits

Home visit by AWW is an important activity as it ensures direct contact of the AWW with the parents who send their children to the Anganwadi as well as transfer of knowledge through interpersonal communication. It also helps in



eliciting the participants of the parents in the programme. All AWWs usually visit the households in their village; however the number of visits per month varies considerably. 43.2 percent of AWWs informed that they visit maximum 20 houses per month where as 22.9 percent AWW informed that they use to cover more than 60 houses.

Counseling beneficiaries and parents of the children is one of the most important functions of the AWWs (78 percent). More than 90 percent Supervisors state that they inform the community about the ICDS and its provisions during the village visits. Supervisors informed that they organize meetings such as *Kishori Baithak* (Meeting with adolescent girls) and *Mahila Mandali Baithak* (Meeting with women SHG members) where all pregnant women, lactating mothers and mothers of 0-6 year's children are invited to participate. They also frequently visit the houses of beneficiaries to inform about the programmes and their benefits. They also organize campaigns and cultural programme for mass awareness. Some also reported that they conducted meetings with panchayat members and avail Gram Sabha as a forum to communicate relevant messages to all the villagers.

#### 14.4.4 Growth Monitoring

As discussed earlier, growth chart were available in 58.3 percent of the AWCs. However, in these centres, the number of the growth charts was found inadequate in 44.8 percent of AWCs. On the other hand, in 40 percent of the AWCs the charts were found to be unavailable. During the last month preceding the research, a total 120 AWWs reported filling a total 2320 growth charts. Most (73.3 percent) centres were found filling a maximum 25 growth charts in a month. Majority (91.1 percent) of them reported regular weighing of children; however only 63.6 percent of them found to record the same in their register. It may be possible that while many AWWs might have the growth charts, they may not be fully confident or have sufficient knowledge to record the same.

#### 14.4.5 Referral Services

In case of severely malnourished children most (69.3 percent) of the AWW refer the child to PHC. In case of quantity of the food served to the malnourished children, 53.6 percent reported that they use to serve twice the quantity of food what they were serving to the normal children.

Majority of the Supervisors (81.4 percent out of 140) reported referring the child to the hospital/PHC/NRC centers in case the child fell in grade III and IV. Majority (80 percent) of the supervisors also reported that they inform and educate the parents regarding the quality and quantity of food required for proper growth of the child. The Supervisors also guide's AWWs on the therapeutic/double ration for the mother of malnourished child. According to

Manoj, son of Ramdeen Lanjevar was mere 1.5 kgs at the time of birth and now at the age of 4 he is only 2.5 kgs. The AWW admitted him in a government hospital at Chindwara where the hospital took care of his health and also paid an amount of Rs. 800/- to his parents to buy extra food for the child. At hospital Manoj was on intravenous glucose. Then after 15 days without informing anyone the family members took the child and came home. AWW tried to help the child but the family refused for take any support from the AWC. They didn't allow them to take their child to the hospital/doctor.

(Village Sonpathar, Chindwara District)

the Supervisors, the key issue while providing services to severely malnourished children is the reluctance of the parents to follow their suggestions and instructions. Most of the Supervisors (81.4 percent) informed that generally for the follow-up treatment parents either show their unwillingness for the treatment or are unable to take their child to the hospital. According to the supervisors, reasons for not sending the child to





NRC/hospital could be their poor economic condition, poor transportation facilities, high opportunity cost especially if the mother has to go along with the child to the hospital, caring of other siblings at home and reluctance of family to send girl child for the treatment. Some (27.9 percent) of the Supervisors also opined that the parents of the malnourished children don't allow their children to be weighed once in fifteen days.

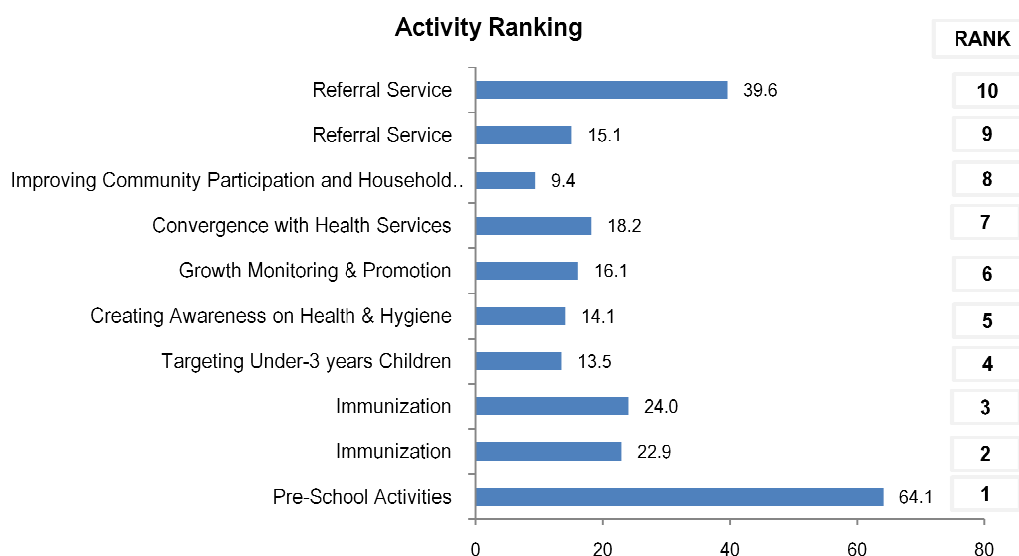
#### 14.4.6 Workload

The daily activity schedule of AWW includes organizing pre-school activities in the Anganwadi for children in the age group of 3-6 years, supplementary nutrition feeding to children, making home visits for educating mothers on health and nutrition and counseling on breast feeding/ infant and young feeding practices, and maintaining records. Being close to the local community, AWW motivate mothers for adoption of best practices for delivery and new born care. In addition to this, Anganwadi workers assist ANM for weekly immunization, health check-up, antenatal check-up and post natal check-up. For growth monitoring Anganwadi workers weigh each child every month and prepare the growth charts. Besides this Anganwadi workers assist in organization of mangal diwas every week.

Among non-ICDS activities carried out by AWWs, 43 percent informed about mobilization of children for routine immunization however almost 62 percent of the AWWs revealed that their routine work gets hampered due to their involvement in polio immunization drives. AWW is also involved in formation and functioning of Mahila Mandals/SHGs, which now provides support to Anganwadi for their supplementary nutrition programme.

During the interview almost 64 percent AWWs responded that they invest most of their time on pre -school activities. Improving immunization status is another activity on which the AWWs spend most of their time (24 percent). Targeting children under the age of three years (13.5 percent) and creating awareness on health and hygiene (14.1 percent) were ranked 4th and 5th by the AWWs.

**Chart 14.3: Ranking of Activity by AWW**



#### 14.4.7 Problems & Issues faced by CDPO, Supervisor & AWW

Supervisors reported encountering several problems while running AWCs. Most (65 percent) of them find the demand of food from the non-beneficiaries as one of the main problems. As they have only a definite amount of stock at their centers which is earmarked for selected individuals, they are unable to fulfill the demand of non-beneficiaries which at time leads to personal differences with the families. Some of the other problems such as unavailability of sufficient utensils at the AWCs, insufficient funds for fuel and rent for AWC premises were also shared by the supervisors. Substantial proportion (42 percent) of the Supervisors also informed that they encounter interference from affluent and influential families which hinders the functioning of AWCs.

A Supervisor is responsible for the supervision of 15-30 AWCs falling within a circle. According to the Supervisors, AWCs are generally scattered, located at remote villages. Lack of transportation facilities hinders their movement and so the supervision becomes difficult. According to them the issues such as non-involvement (also manifested as lack of interest) of the community, village level politics and lack of cooperation from health functionaries affects their performance.

Of 38 CDPOs, more than 55 percent informed that they had faced local political interference in ICDS programme. They also feel that there is considerable lack of interest among community towards the project. In reply to the performance of the project, 45 percent of CDPOs shared that excessive administrative work is one of the main reasons because of which their performance are affected. Some of the other problems faced by the CDPOs are poor transportation facilities in remote areas, gaps in trainings of AWWs/Supervisors and problems in establishing coordination with the health department functionaries. Additionally, it was also found that there was shortage of staff in the office of CDPOs and only 50 percent of the CDPOs were having adequate number of staffs in their project.

#### 14.5 Inclusion/Exclusion from AWC

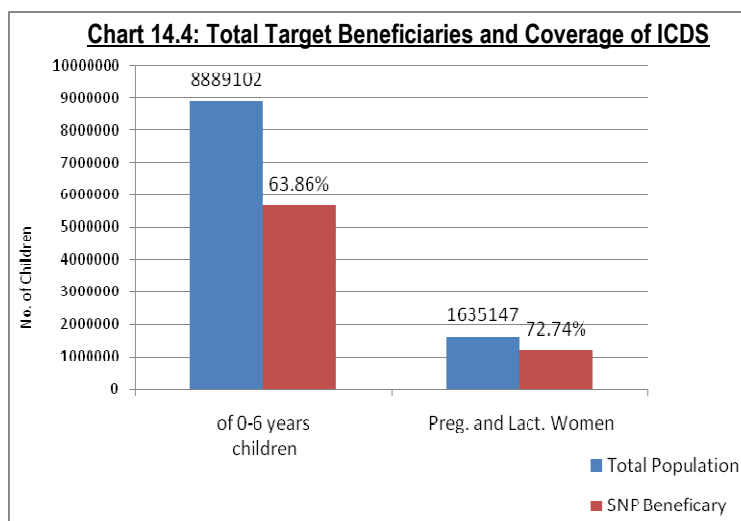
Exclusion is a process where certain groups are neglected to the margins of society and prevented from participating fully. This may be due to many reasons including but not limited to inaccessibility to services, geographical isolation, low education, employment, income and education opportunities as well as social and community networks. Mostly, the excluded sections have little access to power and decision-making, little chance of influencing decisions or policies that affect them and very limited control over factors that determine their standard of living. In case of Anganwadi Centres the various forms of exclusion may be attributed to geographic, economic, policy induced and social exclusion.





### 14.5.1 Coverage

The Supreme Court, in its order dated 28 November 2001, directed the government to universalize ICDS in a manner in which every child up to 6 years, every adolescent girl, every pregnant woman and nursing mother would be reached. A follow-up order to achieve the required numbers was released on 18 November 2008 by GOI for the expansion of Anganwadi to bring the total number of AWCs to 14 lakh. This includes 792 additional Projects, 213859 additional AWCs and 77102 Mini-AWCs and an additional provision of 20,000 Anganwadis for Anganwadi-on-Demand.



According to Monthly Progress Report for the month of May 2009, total population of pregnant and lactating women and children in the age group of 0-6 years was 1,05,24,249 whereas the total number of SN beneficiaries was 68,66,348. Thus, in case of children in the age group of 0-6 years, the total coverage of SNP was 63.86 percent (out of total 69040 reporting centers), where as in case of pregnant and lactating women, the coverage was around 73 percent.

The data depicts a significant gap in coverage of the beneficiaries. In response to the order issued by GOI, the number of Anganwadis, mini-Anganwadis has been increased to 78929 and 9820 respectively. To facilitate universalization of services throughout the state, the norms for establishing an Anganwadi centre has been diluted to a minimum population of 400-800 in rural and urban areas and 300-800 in tribal areas. In addition, the minimum population for mini-Anganwadis has also been rationalized to 150-400 for rural and urban area and 150-300 for tribal areas. As of now, only 69155 centres and mini-centres are operational which reflects that there is still a large number of targeted community left out from the services of ICDS.

### 14.5.2 Geographic Exclusion

In some cases Anganwadi centre might be located far from the human settlement. This may happen in case of hamlets which are mostly situated far from the main village and usually separated by natural barriers such as river, stream, agriculture fields, etc. For instance, in case of village

In the village Jamini, block – Jobat, Dist. Alirajpur, there are seven falias (human settlements) – Patel falia (55 hhs), Dabur falia (45hhs), Dhabolia falia(96 hhs), Pujara falia (35 hhs), Dholani falia (120 hhs), Gucharia and Maida falia (20 hhs) and Nimdi falia (15 hhs). Anganwadi Centre is available in only Patel Falia, Dabour falia, Dhabolia falia and in Dholani falia. All the falias are scattered and are around 1-2 km far from each other. Against the proposed 342 AWCs for the district, 93 new AWCs and 222 mini AWCs have been approved.

Kanchamgaon in Mohagaon block of Mandla, one of the hamlets is situated around 2 km from the village and has 12-15 households. However, there is no ICDS facility as the number of children (0-6 year’s age group) is less than the required number to open a mini-Anganwadi. According to the villagers, supplementary nutrition is seldom received



from the Anganwadi. Similar is the case with several other villages, hamlets and small settlements which are deprived of ICDS services due to geographical barriers. Many tribes especially in districts Dhar, Alirajpur and Jhabua faces such problems where families primarily work as farmer/ field laborers and their houses are located in the fields or in settlements known as *falias*.

### 14.5.3 Social Exclusion

Even though the Anganwadi is in the village, its services may not be accessible to the eligible target beneficiaries. There are children, pregnant and lactating mothers who are excluded from the services of ICDS due to social reasons such as gender, caste and religion, disability and social stigma. Village level dynamics and social actors play a crucial role in excluding some sections from the ambit of Anganwadi services.

Table 14.4: Percentage of Target Beneficiaries Experienced Exclusion from Availing Services from AWCs				
	Urban	Rural	Tribal	Total Percent
<b>Yes</b>	6.6	6.2	5.5	6.1
<b>No</b>	93.4	93.8	94.5	93.9
<b>Total</b>	100 (918 nos.)	100 (2039 nos.)	100 (1055 nos.)	100 (4012 nos.)

However in MP, the data reveals that a minimal percent of respondents face active social exclusion and deliberate discrimination in getting the services from the AWC. In response to the question “*did you ever face any kind of exclusion/discrimination at the*

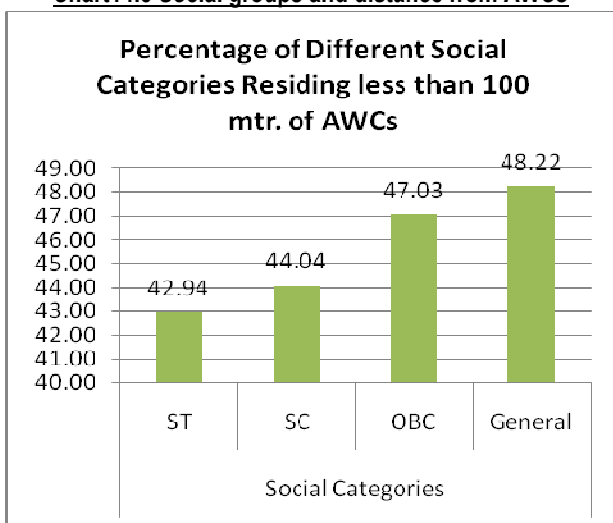
*Anganwadi*” a vast majority (93.9 per cent of total 4012 respondents) replied ‘no’. However, a deeper analysis of the data reveals that the percent of beneficiaries facing some form of exclusion is more in urban as compared to rural and tribal areas. In urban areas 6.6 percent of the target beneficiaries have experienced differentiation by the AWWs whereas in rural and tribal areas the proportion was found to be 6.2 and 5.5 percent respectively. A close analysis of the number of beneficiaries who shared that they experienced some form of exclusion reveals that out of total SC, ST, OBC and general class beneficiaries, 7.8 percent of SC, 6.2 percent of ST, 5.8 percent of general caste and 5.4 percent of OBC were differentiated in availing facilities from AWCs.

*As the AWC is situated in the Patel falia, facilities are mostly availed by the people of Patel falia. It’s difficult for the children and women of harijan falia, which is little far from the AWC to go and get the benefits.*

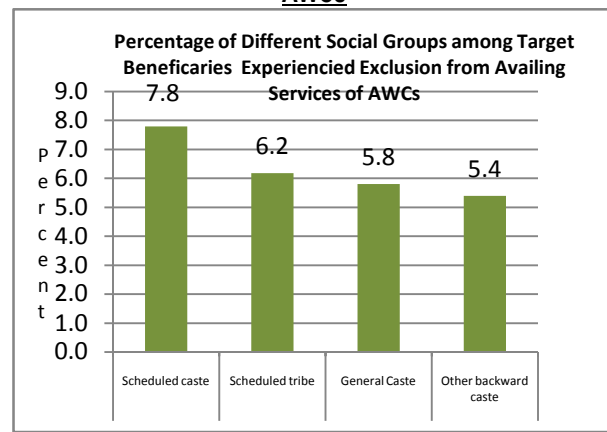
*Villagers of Patel Falia, Jamini village*



**Chart14.5 Social groups and distance from AWCs**

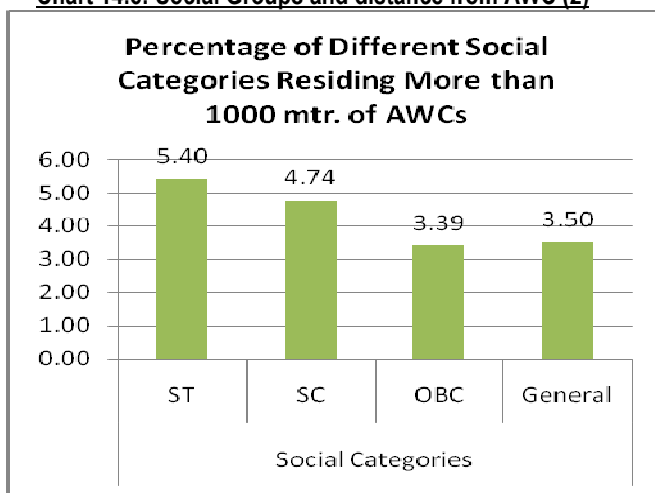


**Chart 14.7: Social Group Experienced Exclusion from AWCs**



Analysis of data depicts that 45.65 percent of total sampled households, AWC was located within 100 meter from their residence where as for 20.19 percent of the HH the AWC was in between 100 to 200 meter. For 20.25 percent of the households, it was at the distance of 200 to 500 meters while 9.73 percent of the population lived from 500 to 1000 meter distance from the AWC. 4.18 percent also reported that the Anganwadi is more than 1000 metres far from their residence. However a close social analysis (Chart 14.5) reveals that among the different social groups, SC and ST were the most disadvantaged community. Only 42.94 percent of the ST and 44.04 percent of SC were residing within 100 metre of distance from the AWC where as in case of OBC its 47.03 percent and in case of general caste its 48.22 percent. Similar was the case for the different social categories residing more than

**Chart 14.6: Social Groups and distance from AWC (2)**



1000 metre distance from the AWCs. In case of STs and SCs the percentage was 5.40 and 4.74 respectively where as in case of OBC and general community only 3.39 and 3.50 percent resides far from 1000 meter of distance.



#### 14.5.4 View of the Panchayat members on Exclusion

Discussions with Panchayat representatives reveal that due to geographical barriers, the services of ICDS are not efficiently rendered to all hamlet/tola/falias/dhana. The members suggested that either the beneficiary should come to AWCs to avail services or the AWW should also try to reach the families living far from the main settlement. According to them one of the major groups who are left out are the members of the affluent families. According to them this may be due to ignorance and lack of information. According to the Panchayat members these families should not be left aside and should be motivated to avail services. Over the period, their involvement may provide an impetus to the programme and may encourage other families to send their children to AWCs. The participants also suggested that dissemination of information about the services and schemes of ICDS should be strengthened. According to them there is no clear outline/guideline on the role of Panchayat members and so the participation in the service delivery is less. A clear guideline will ensure their involvement in the programme.

#### 14.6 Primitive Tribes in Madhya Pradesh and ICDS

The state of Madhya Pradesh inhabits different tribal groups which constitutes 20 percent of its population. Sahariyas, Baigas and Bharias are considered to be the primitive tribes within the geographic contours of Madhya Pradesh. Sahariyas are found in northwest region of the state, mainly concentrated in Gwalior, Shivpuri, Morena, Datia, Guna and Bhind district where as Bharias reside in Patakot valley which is 82 kms north - west to Chhindwada district. Baigas are one of the most primitive forest tribes in Madhya Pradesh. Their culture, traditions and economy are interwoven with forests.

In order to appreciate the services of ICDS and to know the challenges while working with these communities Focus Group Discussions (FGDs) with the target beneficiaries were organized in PTGs inhabited villages. In village Kali-Talai of block Karahal in district Sheopur which is inhabited by Sahariyas, discussions were carried out with the target beneficiaries and Anganwadi worker whereas with Bharias FGDs were conducted in village Rathed in Patakot, district of Chindwara.

Village Kali - Talai is 12 km far from Sheopur town and has a total population of 450 (85 families). The villagers are mostly the wage labourers who use to commute to the district towns every day in search of employment. The village is deprived of some basic amenities such as safe drinking water and electricity. The govt. school in the village is up to class 8th. On visit at 11.00 am, the team of researchers found the Anganwadi closed. On calling, the Anganwadi worker who was from the same village came and opened the centre. The Anganwadi do have its own building but was in poor state. The team found that the centre was unclean and was in the state as if it has not been open since several days. The take home ration was open and was lying on the floor. There were plenty of medicine dumped by the ANM at another room, but most of them had crossed the expiry date.

In village Kali-Talai, beneficiaries shared that mothers of 3 years to 6 years age groups of children regularly gets Dalia and Panjeri as take home food. According to them during pregnancy they are advised by the AWW on importance of nutritious food such as green leafy vegetables, milk and fruit. Beneficiaries were found to be aware of foods to be given to the child after 6 month. They were also aware of Mangal Diwas as they shared that after the seven months of pregnancy, they are called by the AWW on Tuesday and are given coconut, bangle etc. However, they



were unaware of the malnutrition. For women “healthy women” are the ones who are regular on their household chores, having food at right time and in exact quantity. Whereas in case of child they consider the child healthy who plays and eats well.

Village Rathed (patalkot) in block Tamia district Chindwara is almost isolated place with rest of the world. The village is around 70 km far from district town and is comprised of 40 families (population size is 293). Out of 293 villagers, adult male are 120 in number where as adult female are 110, boys 23 and the population of girl is 40. There is a govt. school in village upto 5th class. Most of the villagers are either illiterate or have studied upto primary level. Some have studied/studying in class 10<sup>th</sup> however in case of women hardly anyone has studied above class five. As they have less agriculture land most of the family go for agriculture labour work in nearby area such as Pipriya, hosgnabad etc. There is only one handpump in village and a community well of the village. There is no community health centre and the ANM generally visits once in a month.

According to them AWW delivers her service, ANM visits the AWC occasionally and does immunization of pregnant mother and child, provide iron tablets and other medicine. There is however, a level of disenchantment towards support being offered by panchayat to the AWC. There was a general opinion that only Mahila Mandal and ANMs are helping to improve the quality of services.

In village Rathed the Anganwadi runs in a rented house where 41 children are registered. Out of 41, 13 are boys and 28 girls. The village is scattered and has two hamlets; Jamun Kheda which is one km far from the main village (habitation) and Semal Kheda which is around two km from the main village. As the number of the children is less than the prescribed to open a mini Anganwadi, children of the hamlets have to walk down to the only Anganwadi center at the main village. According to AWW, because of the distance children from the hamlets hardly come to the centre. Anganwadi worker provides Panjiri to adolescent girls, pregnant and lactating women and packet of dalia on each Tuesday to 6 month to 3 years age group of children. For the Anganwadi worker the biggest problem she faces is of carting the provisions (SN) to her village. Village being inaccessible by four/two wheelers the provisions have to be carried from the PDS shop to the village which usually takes more than 2 hours for her. According to her because of the problem of accessibility there is less/negligible institutional delivery. AWWs also reported late payment of honorarium as a major cause of concern. Even though there are three PTGs in Madhya Pradesh, no special provisions/efforts have been made to provide services to the PTGs.

All the discussion, in-depth interviews and case studies in predominated primitive tribal area reveal that accessibility of target beneficiaries to Anganwadi centre is the most important issue. Settlements are scattered and geographically isolated and the number of Anganwadi centres are very few than the actual required number. Another major problem is of connectivity as the villages inhabited by the PTGs are situated remotely and so the services of departments reach difficultly.



## Chapter XV

# Convergence/Coordination with Other Departments & Schemes Under ICDS

Inter-sectoral convergence and coordination aims for better synergies at operational and strategic levels within departments such as Health and Family Welfare, Panchayati Raj & Rural Development, Education and Department of Civil Supply to meet the different needs of the target groups.

### 15.1 Health and Family Welfare

#### 15.1.1 Visits of ANM in AWCs for Immunization & Other Health Related Services

Apart from delivering services under ICDS, Anganwadi centers also coordinate with PHCs to run programmes of Health and Family Welfare Department. These include vaccination, nutrition and health education. This is largely because of the fact that the target group of AWW substantially overlaps with the ANM. AWWs promote immunization, maintain immunization records, refer sick children to healthcare facilities and encourage mothers to seek antenatal care, where as ANMs, conduct general health check-ups of ICDS beneficiaries, give vaccines, dispense medicines and contraceptives, and provide assistance and guidance to AWWs in discharging their health-related duties. Hence, there has to be close coordination between ANM/ASHA/MPW and AWW and Anganwadi Supervisor at the village level<sup>8</sup>.

During the study, almost 80 percent of the Supervisors affirmed close coordination between ICDS and health department; especially at the lower level (PHC level). However, around 20 percent Supervisors also reported difficulty in coordination, specifically with the ANMs. According to them, ANMs are generally pre-occupied with other important tasks of their department. Moreover, inadequate supply of vaccines at PHCs restricts their movement into the villages.

ANMs are required to visit the villages at regular basis, generally on certain pre-fixed days. In study, 20.8 percent of the AWWs (out of 192) reported that ANM had visited their centre in the last seven days; while close to 32 percent of them reported that ANM had visited their Anganwadi centre once in last fifteen days.

According to most (93.8 percent) of the AWWs, during the visit ANMs mainly focuses on the immunization of pregnant women and new born. A substantial number of AWWs also reported that she they do health check-up of villagers (75.8 percent), give advice to pregnant and lactating mothers on nutritional and early childhood care (74.7 percent) and distribute medicine to the villagers (65.7percent).

<sup>8</sup> Department of Women and Child and Department of Health and Family Welfare, Intersectoral Convergence - <http://www.mohfw.nic.in/Intersectoral%20convergence%20between%20DWCD%20and%20DHFV.htm> (accessed on 12/11/2009)





As AWW is entrusted with the task to coordinate with ANM, maintaining records related to health services at AWCs is one of the essential responsibilities of AWW. Of 192 AWCs, 89.1 percent of the AWCs were found to have maintained immunization register while 94.3 percent center had maintained household survey register. Close to 60 percent of AWW responded that they update the registers on a quarterly basis, whereas only 12.2 percent does the same once every month.

Nihal and Saina are the youngest children of Md. Mukim Khan and Nuri of village Sohawal, district Satna. Educationally Md. Mukim and Nuri are not very sound as Md. Mukim has studied up to 5<sup>th</sup> where as Nuri is 7<sup>th</sup> pass. Financially the condition of the family is also deplorable as being landless; livelihood of the family is solely dependent on the wage earned by Md. Mukim by working in garage. On the other hand even after having four children, Nuri is again pregnant and expecting her fifth child in coming months.

Nihal and Saina both are malnourished and fall under the 3<sup>rd</sup> category of malnourishment. Now, at the age of 55 months, weight of Nihal is around 9.5 kg where as Saina who is 24 months is of 6.5 kg. According to the parents, at birth Nihal was good in health and weight was in accordance to the age. But his health started deteriorating after two years. Realizing the problem they took the child to the nearest PHC – Sohawal, where the doctor examined the child and referred to a child specialist at Santa (district town). They took the child to the private doctor at Satna who after check-up prescribed medicine and advised the family to provide nutritious food to the child. However, the child didn't get well even after taking medicine and so; again they took the child to the PHC. Now after visiting the PHC several times, the condition of the child was improving but still he is susceptible to cold. Even now, they keep on visiting PHC for his check-up.

The other child Saina is also malnourished and is not completely immunized. She doesn't have the immunization card. At present both the children are getting supplementary nutrition from Anganwadi centre.

After discussion with the family members, it was felt that the main reason for the malnourishment among the children could be inferred to the followings:

- a. Nuri, mother of the children was married at the age of 17 and within few years she had become the mother of four children and again she was expecting a child. This continuous pregnancy at one hand has adversely affected the health of the mother and because of which the new born was of less weight. Beside due to continuous pregnancy Nuri had been unable to take care of all the siblings. Nuri also informed that her condition itself is also not good as every now and then she feels dizziness and face other health problems.
- b. The poor economic condition of the family is another reason for the malnutrition among children. As shared by the parents, their income is not sufficient to feed nutritious food to the children.
- c. It was also informed that the mother didn't give her first milk (colostrums) to the children. Both Nihal and Saina were born at their grandmothers house (at Rewa), where because of cultural practices, for the first five days the children were fed with goat milk instead of mother's milk.

### 15.1.2 Village Health Education Day (VHED)

VHED is an important activity undertaken by the health department in which all functionaries such as ANM, MPW and ASHA visit the village and carry out activities such as immunization of pregnant women and children, weighing of children and counseling of pregnant and lactating women on health and nutrition. The objective of the programme is





to provide essential and comprehensive health & nutrition services to pregnant women, lactating mothers, children (0-6 years) and adolescent girls. The intervention also aims to ensure early registration, identification and referral of high risk children and pregnant women, provide effective platform for interaction between service providers and community, provide information to families on care of mothers and children at the household and community level through discussion on various health topics and ensure establishment of linkage between health & ICDS to promote maternal & child survival programmes. The programme is organized once in a month in all Anganwadi Centres on a fixed day basis.

Information on VHED was obtained from supervisors and AWWs. Almost 53 percent of supervisors reported that they are organizing VHED in all Anganwadi Centers located in their circle while close to 40 percent informed that less than 3/4<sup>th</sup> of the AWCs in their circle organize the event. According to them the average attendance of the beneficiaries in VHED ranges from 10 to 30. More than 80 percent of the supervisors believe that their role in organizing VHED is critical as they help by liaising with other government personnel. More than two-thirds (68.6 percent) of the Supervisors also informed that during the programme at the village they conduct sessions while 28.6 percent try to hire services of resource person from outside.

Nearly two-thirds of the AWWs (63 percent of 192) informed that they have been conducting Village Nutrition and Health Education Day regularly whereas the rest (37 percent) were not organizing. Out of 121 AWWs who organizes VHED, more than 75 percent of them informed that immunization, health and nutrition, education to mothers and weighing of children are some of the important activities that were carried out during the VHED.

### 15.1.3 Referral Services

During health check-ups and growth monitoring, sick or malnourished children in need of prompt medical attention are referred to Primary Health Centres or Sub-centres. The AWW lists all such cases in a separate register and refers to the medical officer at Primary Health Centre/Sub-centre. Beneficiaries with referral slips are attended on priority basis and the follow up action is initiated by the respective Anganwadi Workers. During the field visit it was found that referral slips were unavailable in most AWCs (72.7 percent), whereas a total 128 cases were referred from the AWCs (192 AWCs), out of which 39 were of high risk cases.

### 15.1.4 Nutritional Rehabilitation Centers (NRC)

Nutritional Rehabilitation Centers are run jointly by the Ministry of Women and Child Development and Department of Health. The objective of NRC is to provide institutional care for children with acute malnutrition, promote physical, mental and social growth of children with acute malnutrition and to build capacity of primary care givers in the home based management of malnourished children. It aims for intensive feeding to the child to recover lost weight and build capacity of the primary caregivers (generally mothers) through sustained counseling and continuous behavioural change activities. In NRC children falling under grade III and IV (severely malnourished) along with their parents (preferably mothers) are kept for a period of upto 14 days. Special care is given to the child by providing nutritious food, vitamins and medicines. These centers are established in district hospitals or community health centers.



**Table 15.1: NRC Status in Madhya Pradesh as on 31st December 2009  
-Division Wise Status of NRC**

Division	District Covered	Fully Functional	Partially Functional	Infrastructure Established	NRCs Proposed
Indore	8	36	0	1	15
Bhopal	8	24	8	3	5
Ujjain	6	21	4	2	3
Jabalpur	8	24	3	0	4
Rewa	7	14	6	4	4
Gwalior	8	28	5	2	3
Sagar	5	19	7	3	3
<b>Total</b>	<b>50</b>	<b>166</b>	<b>33</b>	<b>15</b>	<b>37</b>

above table (table no. 15.1) represents detail of the total NRCs established in various divisions.

However, Sanket, a non government organization in its study has questioned the coverage of NRC - 'to take care of

**Box 15.1: Rohit Rehabilitated**

Rohit, son of Shri Rajesh Patel and Smt. Shyamkali was born on 12<sup>th</sup> December 2006 in village vimaltaha (project ajaygarh, dist. Panna). Because of social practices he wasn't fed colostrums after the birth. Moreover, as his mother couldn't offer sufficient milk, he was fed with external milk. After the birth Rohit became ill and started losing weight. On suggestion of Anganwadi worker, on 1<sup>st</sup> September the child was admitted in NRC. At that time his weight was 6.955 kg. In NRC Rohit was fed with sufficient nutritious food, medicines and vitamins. On 14<sup>th</sup> September he was discharged with a weight 7.850 kg. His mother who was also with him for 14 days received rupees 1180/- as per the guidelines of NRC. Now his condition is stable and getting additional supplementary nutrition from village Anganwadi centre.

13 lakh severely malnourished children in the State there are only 135 NRCs that have been established so far. Moreover, out of these only 95 centers are fully functional while 40 NRCs are partially functional. There is a facility of merely 1678 beds to take care of suffering children and alarmingly 49 NRCs do not have trained staff. In such pitiable circumstances, even if everything functions properly in the system, it will take at least 33 years to reach out

and serve all the severely malnourished children in the state (Sanket, Moribund ICDS, 2009<sup>10</sup>).

<sup>9</sup> Department of Child and Family Welfare, NRC Status in Madhya Pradesh, as on 27<sup>th</sup> March 2010, Bhopal, MP, India.

<sup>10</sup> Sanket - Centre for Budget Studies, Vikas Samvad and Right to Food Campaign Madhya Pradesh Support Group (2009), Moribund ICDS - a study on the ICDS and Child Survival issues in Madhya Pradesh, Bhopal, Madhya Pradesh India.



**Box 15.2: Budget of NRC**

The NRC has a 20 bedded / 10 bedded ward attached with a kitchen and toilet facility, and a demonstration room. A provision of Rs. 135000/- has been made for establishing an NRC. An ideal NRC is allotted an amount of Rs.3500/- per child for 14 days. The amount includes cost of food @ Rs 25 per day for the child, wages compensation of 14 days and the food costing @ Rs 65 per day for the mother of the child along with travel expenses (@ Rs 200/-) and the stipend (Rs. 100/- per child) given to the Anganwadi worker for bringing the child to NRC.

According to CDPO, Mohgaon in Mandla district, 'The number of NRC is less than required. As most of the time the number of malnourished children in NRC is more than its capacity, to accommodate/admit the malnourished child, they have to make extra efforts'.

During field visit it was also informed that the families are often reluctant to send malnourished child to NRC. One such case was of Shri Jagdish Adivasi of village Kakarwas (Project Raghogarh, District Guna) whose son Shivlesh was only 6.700

kg after 30 months of birth. When Jagdish was approached by the AWW and was asked to admit the child to the NRC, he refused to admit in NRC because Shivlesh's mother had never been out of village. Moreover, the family was also apprehensive about the place and was ready to send the child to NRC only when the Anganwadi worker or ANM would also accompany them to the NRC. In some cases social and economic reasons were also reported for the reluctance of family members to follow the suggestions of AWWs. Such was the case with malnourished Roshni of village Sigaon (Project Nasrullaganj, District Shehore), who's family was not keen to send Roshni to NRC for being a girl child.

## 15.2 Department of Panchayat and Rural Development

### 15.2.1 Panchayati Raj Institution (PRI)

The 73rd Amendment to the Constitution of India is a milestone in the process of establishing democratic decentralized administration through local bodies and taking administration to the doorsteps of the people to ensure economic and social justice. Madhya Pradesh has a three-tier panchayati system with Gram Panchayats at the village level, Janpad Panchayat at the intermediate (block) level and Zila Panchayat at the district level. Additionally, there is the Gram Sabha, which is the basic unit in the Panchayati Raj mechanism. PRIs have a crucial role in the current ICDS set up. Recruitment of the AWWs, construction of AWCs, supply of supplementary nutrition, monitoring of AWCs and overall support to the AWW are some of the responsibilities assigned to the Gram Panchayat.



### 15.2.2 Role in Mitigating Malnutrition

#### Box 15.3

Most of the panchayat members of 20 villages where Focus Group Discussion (FGD) were conducted believe that the malnutrition results due to low body weight and decrease in blood. For them the reason for the malnutrition is insufficient food intake both in quantity and quality of the food material. According to them, poor financial condition of individual also plays a role in his/her nutritional status. According to them there is no particular group who can be labeled as susceptible to the scourge of malnutrition, however Tribal and Harijan's are more vulnerable than any others as they generally go out of village in search of work and so are unable to take care of their children. According to them government has taken some steps to curb malnutrition, such as supplementary nutrition and health education in Anganwadis and mid day meals in schools. According to them the Anganwadi workers need training as they are not well trained to discharge their duty.

From November 2009, the State Government has changed the existing decentralized food model in the state and has initiated *Sanjha Chulaha* – an arrangement for supplementary diet under Rural Area Integrated Child Development programme for children in the age group of 3 to 6 years and for pregnant and lactating woman on every Tuesday of the week at the Aanganwari Centre. For the delivery of this activity, the role of panchayat has been delineated by the department of Rural Development and Panchayati Raj.

This programme has been merged with the mid-day meal program, wherein the same

SHG which distributes freshly cooked food in schools also cook food for the children of Anganwadi Centre from the same kitchen. This common kitchen has been termed as *Sanjha Chulaha*. The task for the selection of SHG is assigned to the Gram Panchayat. If Gram Panchayats finds the SHGs are not delivering their services then they are also empowered to remove the SHG. It has been devised that after getting the allotment from ICDS, payment to the SHG would be done by the Panchayat. It has been also planned to include the Panchayat members in the process of social audit. Under *Sanjha Chulha* programme it is envisaged that at the block level monitoring should be done by the same committee which is monitoring the Mid Day Meal programme.

### 15.2.3 Role in construction of Anganwadi centers

As per the ICDS norms, to undertake the construction of Anganwadi building, priority is given to the Gram Panchayat. As discussed earlier, this year, under the backward grant scheme, Gram Panchayats will be constructing AWC buildings in 27 districts. However, the quality of the construction undertaken by the Panchayat has been a contentious issue. According to one of the senior project personnel at state level - *'department is designing models for new Anganwadi Centres and if it gets approved then a serious thought would be given to its construction plan, as experience with the Panchayat in the past has not been satisfactory. There are issues of 'leakage' and 'damage floor' because of the use of poor raw materials'*.

#### Box 15.4

On role of Panchayat in combating major diseases members shared that they promote the message of maintaining hygiene by advising villagers to keep their homes and village clean. According to them, Panchayat also provides bleaching powder. However, Panchayat members had a feeling that they have to play greater role in ensuring well being of the child. They accepted that there haven't been any sincere efforts by Panchayat to ensure nutrition among the children and women. ***Till date the role of PRI is restricted to support the pulse polio and immunization drive only.*** The respondents were of the view that in order to facilitate the process, there should be effective coordination between PRI and ICDS. Moreover, a core group comprised of PRI members should also be formed to take care of ICDS programme.



#### 15.2.4 National Rural Guarantee Scheme (NREGS)

There is a strong motive among the Department of Rural Development & Panchayat Raj to convergence as it has been felt that women who constitute 50 percent of the workforce in rural programmes such as NREGA come from poor rural households where productivity highly depends on the physical health<sup>11</sup>. Lower levels of health and nutrition can affect their work output aggravating vicious cycle of lack of economic resources and well being. Women who come to work under NREGA often face the problem of attending to their children at the time of work. NREGA is empowered to provide crèche at work site which presents an opportunity to strengthen child care without compromising on economic opportunities available to the mother<sup>12</sup>. However it has been realized that no such steps have been taken in the field wherein the Department of RD & PI and the ICDS have worked jointly for the same.

#### 15.3 Department of Education

ICDS and the Department of Education are slowly evolving scope for coordination to efficiently run the AWCs. In the field survey it was observed that in many places where there were no Anganwadi building, the schools are providing the space. Moreover in all the villages enrollment of all children from AWCs to the primary school is ensured by the school administration. In recent past, ICDS has liaised with the PDS and Schools to implement the *Sanja Chulha* programme.

#### 15.4 Department of Food and Public Distribution

ICDS and Public Distribution System in MP are closely linked for the supply of supplementary nutrition. As discussed earlier the weaning food '*panjiri*' is supplied by MP Agro whereas the responsibility of supply of supplementary nutrition is in coordination with the public distribution system. Under the Supplementary Nutrition Programme, wheat and rice quota are acquired from the GoI and allotted to the Department of Food and Public Distribution by Department of Women and Child Development. The food and public distribution corporation after getting the allotment sends the materials to the respective PDS shops from where Women Self Help Groups (SHGs) or other institutions selected by the district administration procure the food materials. Now as in the villages, the concept of *Sanja Chulha* has been introduced, women SHG involved in preparation of the mid day meal also procures food from the PDS at subsidized rate.

#### 15.5 Schemes under ICDS

Various schemes and projects running under the ICDS envisage the fulfillment of the objectives of the programme. In Madhya Pradesh, the state government has introduced several schemes for scaling up the programme to attain the targets set out in the Millennium Development Goals viz: eradicate extreme hunger and poverty; promote gender equality; reduce child mortality and improve maternal health. The following depicts some of the important schemes of

<sup>11</sup> Department of Rural Development, Ministry of Rural development (2008), Report of the Task Force on Convergence, NREGA, Govt. of India New Delhi

<sup>12</sup> Constitution of Task Force on convergence of programme/schemes with National Rural Guarantee Act, Memorandum no. J-11019/2/2008, Ministry of Rural Development, Department of RD, GOI, New Delhi





Department of Women and Child Welfare running under the Umbrella of ICDS which are directly related to the objective of the ICDS:

### 15.5.1 Mangal Diwas Yojna<sup>13</sup>

The scheme is divided into four sub-programmes, which are observed on consecutive Tuesdays in a month starting from: Godbharai Yojana followed by Annprashan Yojana, Janm Diwas and Kishori Balika Diwas.

Close to 90 percent (Out of 189 AWW) of AWWs reported that they have shared information about Mangal Diwas Yojana to all the targeted beneficiaries. However, Anganwadi workers were found to be not well informed about the key services and provisions under the scheme. Only 85 percent reported about *god-bharai* for pregnant women, 65 percent informed about *annaprashan* for 6 month old child and marginally more than 50 percent reported Kishori Balika Diwas for the adolescent girls as components of the scheme.

Moreover, knowledge about the services among the target population was also low. Only 42 percent of pregnant women were aware of *Mangal Diwas Yojana*, specifically *God Bharai Diwas*. Of these, only 59.2 percent of pregnant women reported participation in celebration of *Mangal Diwas*. In case of Lactating women 64.6 percent knew about *Mangal Diwas Yojana* of which, almost 66 percent of the respondents mentioned that they had participated in *Mangal Diwas*. Only 43.3 percent of the mother of 6 months to 3 years of age group and 34 percent of 3 years to 6 years of age group were found to be aware of the *Mangal Diwas Yojana*. It is evident that there is considerable gap between information dissemination and the percentage of the targeted beneficiaries either knowing about the services or availed the services.

### 15.5.2 Naveen Poorak Poshan

According to the AWWs *Poorak Poshan Aahar* scheme is for the children between 3 to 6 years, pregnant and lactating women and for the adolescent girls. Different types of supplementary nutrition are provided to children, adolescent girls and women (separate food for each day). Earlier it has been mentioned that nearly 70 percent of the pregnant women were aware about *Poorak Poshan Aahar* (supplementary nutritional diet) being distributed through AWC. Of those who were aware of *Poorak Poshan Aahar*, it was found that only 67 percent were receiving benefits under the scheme. In case of mothers of children between the age of 6 month to 3 years, 63.5 percent responded that they are receiving benefits under *Poorak Poshan Aahar Yojana* whereas almost 84 percent of mothers of children of age 3 to 6 years knew about *Poorak Poshan Aahar*.

### 15.5.3 Bal Sanjeevni Abhiyan

After the twelve round of Bal Sanjeevni the malnutrition among the children had come down from 57.57 percent in 2001 to 46.37 in the year 2009. The percentage of malnourished children identified in the Bal Sanjeevni is depicted in the following table:

<sup>13</sup> ICDS, Department of Women and Child Development (2009), Programmes, Bhopal, Madhya Pradesh <http://mpwcd.nic.in/schemes.htm> (accessed on 5/10/2009)



**Table 15.2: Different Round of Bal Sanjeevni and Malnutrition**

Rounds of Bal Sanjeevni	Severe Malnutrition	Total Malnutrition
	In Percent	In Percent
First (2001)	5.49	57.57
Second (2002)	3.08	55.13
Third (2002)	2.92	56.4
Fourth (2003)	2.05	55.18
Fifth (2004)	1.68	55.24
Sixth (2005)	1.22	50.38
Seventh (2005)	1.38	50.23
Eight (2006)	0.91	49.21
Nine (2006)	0.78	48.17
Ten (2006)	0.68	47.6
Eleven (2007)	0.56	47.14
Twelve (2008)	0.57	46.37

During the study 70 percent of the AWW shared that during the Bal Sanjeevni weight measurement and supply of nutritious food to children and pregnant mothers was the key provisions. Around 50 percent reported that vitamin A, ORS, IFA tablets and food were also provided under the scheme. However, information about Bal Sanjeevni Abhiyan among the community members were found to be very less. Among the pregnant women only 20 percent were found to be aware of the programme as in case of other it was very minimal. Data reveals that though people did participate in the programme and had the benefits, they were not very familiar of the nomenclatures of the programme.



## Chapter XVI

# Service Delivery at ICDS through A Comprehensive Overview of Cost Analysis, Innovative Models and SWOT Analysis

This chapter provides a comprehensive analysis of the cost of the project and the efficiency of the service delivery. Further in the chapter, various innovative and suggestive models for the implementation of ICDS have been explained. At last comprehensive Strength, Weakness, Opportunity and Threat (SWOT) of the scheme has been depicted in the chapter.

### 16.1 Cost Analysis

#### 16.1.1 Financial Norms under the Existing Interventions in ICDS

On 18th December 2008, Ministry of Women and Child Development, GOI issued the revised cost norms for the facilities available in AWC and for the associated scheme personnel. GOI also directed that the cost sharing ratio between the centre and the state (MP) will be 50:50 for SNP and 90:10 for all other components for the year 2009-10.

#### 16.1.2 Details of the Cost Norms

Table 16.1: Cost Norms for Running AWCs

Item	Norms
Medicine Kits	Rs. 600/- per AWC per annum
Pre-school Education(PSE) Kits	Rs. 1000/- per AWC per annum
Contingencies	<b>At AWC level</b> Rs. 600/- per AWC per annum
	<b>At Child Development Project Office (CDPO) level</b> Rs. 40000/- per CDPO per annum
	<b>District Programme Office (DPO) level</b> Rs. 1,00,000/-per DPO per annum
	<b>State/UT Cell</b> Rs. 1,20,000/- (with less than 50 Projects) per annum. Rs. 1,60,000/- (with 50 to 200 Projects)per annum Rs. 2,00,000/- (with more than 200 Projects)per annum
IEC	Rs. 1,000/- per annum per operational AWC except Lakshadweep, Dadar & Nagar Haveli and Daman & Diu. (where it is Rs. 50,000/- per Project per annum)
Rent	Rs. 200/- per AWC per month in Rural/Tribal Projects. Rs. 750/- per AWC/per month in Urban Projects,
Petrol, Oil and Lubricant (POL)	<b>CDPO</b> - Rs. 1,25,000/- per annum
	<b>DPO</b> - Rs. 1,20,000/- per annum
	<b>State Cell</b> Rs. 1,20,000/- per annum (where hired vehicle are not provided) Hired vehicles- Rs.2.15 lakh per annum



<b>Monitoring and Evaluation mechanism</b>	Rs. 500/- per operational AWC annum [printing of various records/registers, replakhement/repair of weighing Scales, computerization of Project Office/ District/State Cell/ Data Entry etc.]
<b>Equipment/Furniture (Non-recurring)</b>	<b>Anganwadi Centre (AWC)</b> Rs. 5,000/-
	<b>Child Development Project Office (CDPO)</b> Rs. 1,50,000/-
	<b>District Programme Office(DPO)</b> Rs. 1,50,000/-
	<b>State level</b> Rs. 1,00,000/- (For less than 50 Projects) Rs. 2,00,000/- (For more than 50 Projects)

### 16.1.3 Budgetary Provisions for the ICDS and Schemes

The Government of India has embarked upon a programme of expansion of ICDS Scheme with emphasis on quality. Against the expenditure of Rs. 26,012.8 million in the Eighth Five Year Plan (1992-1993 to 1996-1997) the Allocation of funds increased to Rs 116,845 million in the Tenth Five Year Plan (2002 – 2007) for the programme.

In Madhya Pradesh, in the financial year 2008-2009 a total of Rs. 91,463.99 lakh was provisioned out of which Rs. 1,458.61 lakh was for the non-planned activities where as the rest Rs. 90005.38 lakh was for the planned activities. Till January 2009 the department has managed to spend Rs. 901.74 lakh in non-planned and Rs. 49,438.19 in planned activities. Out of Rs. 90,005.38 lakh provisioned in planned item, Rs. 37,732.38 lakh is provisioned for the state plan, Rs. 51,573.47 lakh for central schemes and rest Rs. 699.13 lakh has been provisioned for the schemes supported from support from other donors including foreign funds. During 2006-07, 2007-08 and 2008-09 Rs. 442.47 crore, Rs. 691.87 crore and Rs. 914.64 crore were provisioned respectively against which Rs. 405.17 crore, 629.71 crore and 503.40 crore (upto January 2009) were spent.

### 16.1.4 Cost Component Analysis

The funds available to the ICDS and its affiliated/ allied schemes and programmes can be broadly divided into two components viz. Programme Expenses and Programme Support Expenses. While the Programme Expenses would comprise of all cost head that form part of the direct support to beneficiaries of ICDS, the Programme Support Expenses would be a sum of all other cost heads not directly benefitting the target community such as administrative expenses, salaries, training expenses and capital expenditure. Analysis based on these two broad heads illustrates that the proportion of Programme Support Expenses has increased considerable over the last three years. This is largely due to the increase in administrative expenses and capital expenditure. In effect, this denotes that the cost of delivery of ICDS services had increased from a mere 4% in FY 2006-07 to more that 17% in FY 2008-09.



**Table 16.2: Expenses on Programme and Programme Support**

Budget Head	Share in Expenditure/ Expense (Percent)		
	2006-07	2007-08	2008-09
Programme Expenses	95.81	91.94	82.56
Programme Support Expenses	4.19	8.06	17.44

The table below gives details of the expense/ expenditure made under the ICDS and related interventions under various budget heads.

**Table 16.3: Expenditure on different budget heads**

Sl. No.	Budget Head	Total Expense/ Expenditure (In Lakh)		
		2006-07	2007-08	2008-09
1	Programme Expense – ICDS	16,752.86	21,226.12	23,615.88
2	Programme Expense – Nutrition	20,019.80	30,508.23	27,297.71
3	Programme Expense – Other Schemes	471.87	4,420.93	15,988.11
4	Programme Support Expense – Training	313.55	550.68	476.44
5	Programme Support Expense – Admin	912.88	3,103.00	8,652.67
6	Programme Support Expense – Capital Expenditure	402.00	1,271.43	5,000.00
		<b>38,872.96</b>	<b>61,080.39</b>	<b>81,030.81</b>

Like all other state interventions, ICDS also works on an allocated budget under the various heads. The allocation is made at the beginning of every financial year based on the demand for the activity, expense made in the previous financial year and the availability of resources. The projects are required to make expenses and ensure utilization as per the allocation made. The ratio of utilization to allocation under a particular budget head may be an indicator of the efficiency with which the particular activity (or group of activities) under the budget head has been implemented as well as its demand. The following table and graph give details of the utilization efficiency under the various heads.

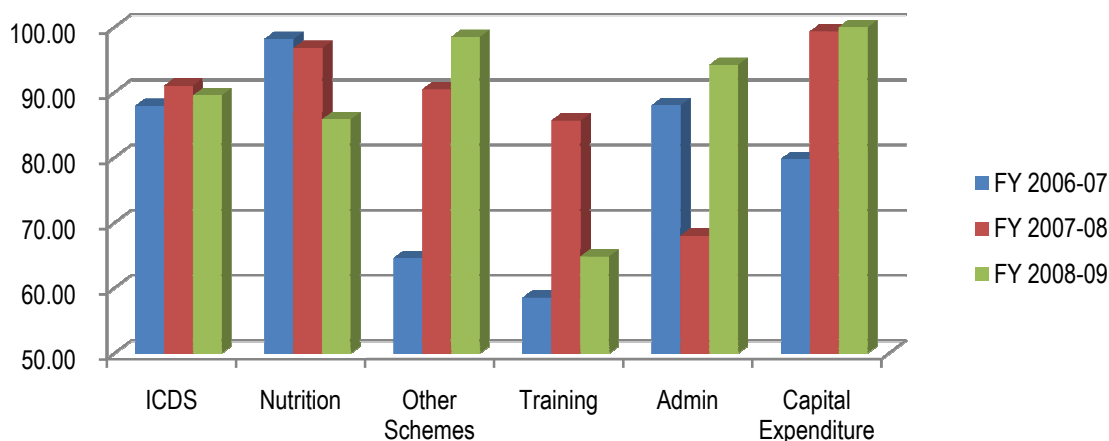
**Table 16.4: Expenditure on different budget heads**

Sl. No.	Budget Head	Expense/ Expenditure vs. Provision (Percent)		
		Financial Year 2006-07	Financial Year 2007-08	Financial Year 2008-09
1	Programme Expense – ICDS	87.96	91.02	89.56
2	Programme Expense – Nutrition	98.20	96.84	85.87
3	Programme Expense – Other Schemes	64.62	90.47	98.50
4	Programme Support Expense – Training	58.55	85.68	64.84
5	Programme Support Expense – Admin	88.05	68.04	94.22
6	Programme Support Expense – Capital Expenditure	79.78	99.34	100.00



The table and the graph illustrate that while the utilization has been largely in line with the allocation, there may be scope to enhance this further in case of training. Also, utilization of funds allocated for other schemes has shown considerable improvement.

Chart 16.1: Utilization of funds



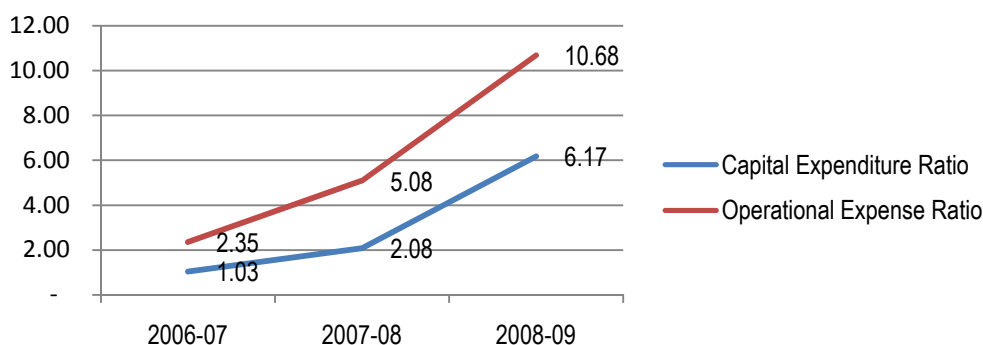
### 16.1.5 Analysis of Efficiency of Service Delivery

The key indicators of financial prudence any development intervention is the ratio of expenses made to execute the intervention to the total monetary or financial value of the entire intervention basket. In case of ICDS, this may be reflected in the ratio of operational expenses (admin, salaries, honorarium, rent etc) to the total funds spent under the programme. The Operational Expense Ratio (OER) has seen a steady and significant increase in the last three years as is reflected in the graph below.

Table 16.5 Operational and capital expenditure ratio

	2006-07	2007-08	2008-09
Operational Expense Ratio	2.35	5.08	10.68
Capital Expenditure Ratio	1.03	2.08	6.17

**Chart 16.2: Graph depicting the rise in differences between capital and operational expenditure**



Also, as reflected in the above graph the proportion of capital expenses has in the overall resources utilized under the ICDS has increased considerably from 1% to more than 6% in the last three years.

On an average, the cost of service delivery and administration under the ICDS is Rs. 133.60 for the financial year 2008-09. This has to be juxtaposed with the benefits delivered which amount to a total of Rs. 1032.98 per beneficiary. The following table gives the break-up:

**Table 16.6 Benefits delivered per beneficiary**

Intervention – ICDS	364.63
Intervention – Nutrition	421.48
Intervention - Other Schemes	246.86

However, in the absence of any benchmarks or standards of service delivery efficiency, it may not be to appropriate to comment and categorize the ratios has high. For better monitoring and efficient fund utilization, the ICDS programme may consider developing a set of benchmarks for service delivery.

Another key determinant of efficiency of programme activities is the adequacy of capacities of the frontline functionaries involved in service delivery to the target beneficiaries. In case of ICDS, this may pertain to the AWW and AWH who are key personnel at the village level. Thus it is imperative for the success of the programme that the knowledge, skills and attitude of these functionaries is in congruence with the desired roles and responsibilities. Also, a programme of the scale of ICDS may invest regularly in developing and augmenting the knowledge and skills through trainings, exposures and other capability enhancement activities. In absolute terms, the programme spent an average of Rs. 172.57 per Anganwadi Centre on training.

A look at the capacity building (training) costs as percentage of the total annual expenses under the ICDS also reveals that investment made here is rather low. However, as in the previous case it may not be to appropriate to comment further considering that there may be no benchmarks or standards to compare performance.

	2006-07	2007-08	2008-09
Capacity Development Cost	0.81	0.90	0.59



## 16.2 Existing Models for Implementing and Strengthening ICDS Programme

Various attempts have been made to strengthen the ICDS system and various models have been tried across various regions in the country. The different existing models can be categorized into two broad category i.e. a) Models of direct implementation at AWC level and b) Model of long term technical assistance for effective implementation of ICDS. The section below presents the model in detail:

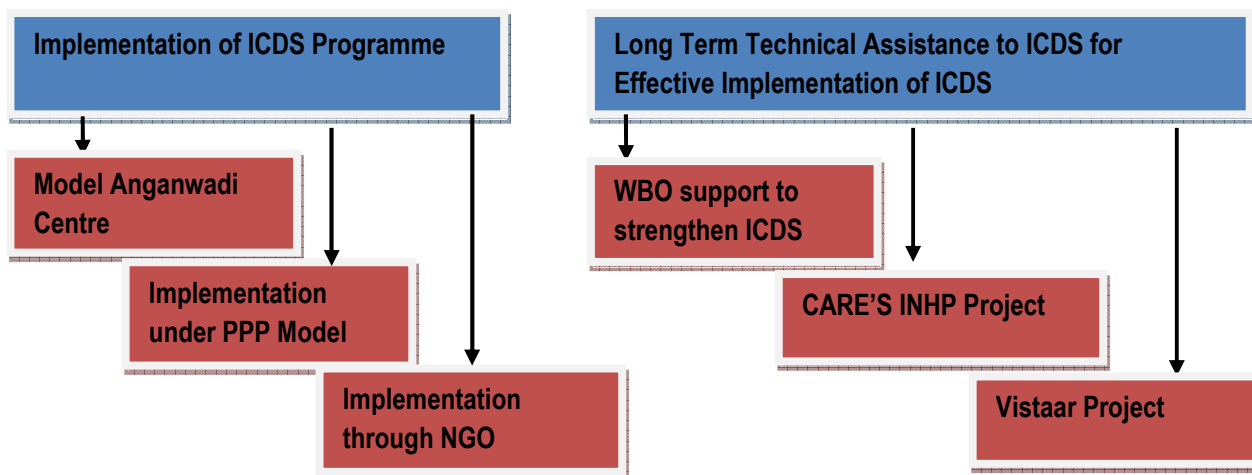


Figure 3: Existing models for ICDS implementation

### 16.2.1 Models showcasing Direct Implementation of ICDS Programme

#### ➤ Model Anganwadi Programme

Model Anganwadi is a program initiated under the Integrated Child Development Services Scheme through the Child Development Project Officer (CDPO) in various economically backward and urban slum communities. It consists of strengthening select Anganwadis, promoting them as 'Model Anganwadi', and replicating this model in other areas. It involves providing them with the basic infrastructure, necessary teaching aids, innovative study materials, interactive tools, toys / games, etc and setting up various self-study corners to impart improved level of education. The focus is on encouraging the children to identify and develop their own areas of interest through self learning, under the guidance of trained Anganwadi teachers

#### ➤ Implementing ICDS Programme under PPP

Realizing the constraints of resources and difficulty in reaching out beneficiaries at far rural areas, Public-Private-Partnership (PPP) modal could be one of an appropriate strategy for widening the service delivery mechanism. Even the Ministry of Women and Child Development of India has proposed public-private partnership (PPP) for strengthening the Integrated Child Development Scheme (ICDS). The Minister of Women and Child Development Renuka Chowdhury said 'still there were some gaps which could be filled through the participation of other stakeholders of the society especially private industry and added that investment in the children would provide better human resource to the industry and better citizen to the country' (<http://igovernment.in/site/india-to-take-ppp-route->



[for-integrated-child-development](#) accessed on 19/03/2010). The partnership may include resource mobilisation for construction of Anganwadi centres, creating facilities such as child friendly toilets, kitchen, drinking water, pre-school education kits and regular health check-ups at ICDS health centres and so on. Recently Vedanta Aluminium has signed MoU with Orissa Govt. to support 600 Anganwadi in five blocks of Raygada district of Orissa. Same is the case with Reliance Industries which has taken an initiative to construct Anganwadi centres in Gujarat.

➤ **NGOs implementing ICDS in MP**

In MP ICDS two ICDS projects are being run by NGOs. In Indore, Bal Niketan Sangh a Indore based NGO is running the project in urban area. BNS was the first voluntary organization to which Social Welfare, Board, Madhya Pradesh sanctioned two ICDS projects, one in slum areas of Indore and other in the tribal area of Jobat (1988). Presently, BNS is implementing urban ICDS through 111 Anganwadis across 41 slums of Indore, covering a population of 1,17,880. The grant for running the ICDS project-1 is provided by the government where as Selection, management, remuneration, training and monitoring of staff and community mobilization is carried out by BNS. BNS has also facilitated the formation of a Sahyogini Matr Samiti as well as a Swayam Sahayita Samooh in each of its ICDS program areas. Sahyogini Matr Samiti is a voluntary mothers' committee which monitors and supports activities being conducted at the Anganwadis where as Swayam Sahayita Samooh is a self help women's group which works on slum welfare and microcredit (<http://www.auhn.org/?q=node/20> accessed on 22/03/2010). On the other hand Sewa Bharati of Bhopal is a registered NGO under the society registration act of 1973 of Government of Madhya Pradesh and its running the project in Gairatganj, district Raisen.

## 16.2.2 Long Term Technical Assistance to ICDS for Implementing the Programme

➤ **World Bank Supported ICDS project**

The Phase-III of the World Bank assisted ICDS (Women & Child Development Project), aimed at accelerating the improvement of the nutrition and health status of children 0-6 yrs and women, by increasing the quality and impact of the ICDS programme, originally in the states of Uttar Pradesh, Rajasthan, Maharashtra, Tamil Nadu, and Uttar Pradesh. In addition, the Project aimed to strengthen the ICDS programme in all 35 States/UTs, by improving the quality of training of ICDS functionaries (called Project 'Udisha'). The Project was re-structured in 2003 keeping in view the progress and to utilize full IDA allocations. Madhya Pradesh was included in ICDS-III Project w.e.f. October 2002. Some of the major interventions made under the Project were reaching out to uncovered areas, strengthening service delivery by procurement of goods & equipments, financial management & monitoring, women's empowerment through adolescent girls scheme, infrastructure development such as civil works, quality improvement activities (Information, Education and Communication (IEC), Free Expression for Quality Improvement (FREQL) and capacity building of ICDS functionaries through Project Udisha (<http://wcd.nic.in/PBEvalReport.pdf> accessed on 22/03/2010).

In Phase IV, 158 high-burden districts from eight States were proposed for the implementation of project based on low nutritional status of children less than 72 months and anemia level among pregnant women of age 15-44 years. The proposed project had two major components, (i) Nutrition and (ii) Early Childhood Education (ECE). Though, in planning a total 30 districts were identified to receive support from WB but latter, ICDS, MP devised its own mechanism and had initiated the work without the support of WB.





### ➤ INHP Project

Integrated Nutrition and Health Project (INHP) is a USAID supported maternal and child health project implemented by CARE with the goal of achieving “sustainable improvement in nutrition and health status of women and children” since 1996 in different phases. In its third phase, INHP III (2007 to 2009) aims to consolidate the gains made over the last ten years through two 5-year phases (INHP I: 1997–2001 and INHP II: 2002-2006). The project is operational across 711 blocks of 75 districts in eight Indian states, viz. Andhra Pradesh (AP), Chhattisgarh (CG), Jharkhand (JH), Madhya Pradesh (M.P.), Orissa (OR), Rajasthan (RJ), Uttar Pradesh (U.P.) and West Bengal (W.B.). The primary target groups of INHP III are pregnant women and lactating mothers and children under two years of age in the eight states with an outreach of out about 12.07 million women and children.

The project has adopted two strategies for phase out of a) consolidation and phase-out from Primary Program Area (PPA)<sup>14</sup> b) replication of proven INHP good approaches, systems and practices in about 283 blocks in the current INHP districts and replication of five INHP good practices in 303 blocks of 21 remaining districts of Andhra Pradesh and Chhattisgarh (referred as Replication Areas<sup>15</sup>). INHP III implemented four **key strategies** for ensuring effective implementation in the III<sup>rd</sup> Phase. These include:

**Key strategy 1:** Technical, managerial and operational support to ICDS at district and sub-district levels in current districts

**Key strategy 2:** Support to strengthen mechanisms to enhance capacities and opportunities for community leaders and organizations to hold service providers and programs accountable

**Key strategy 3:** Responsive technical and operational assistance to selected states to replicate INHP approaches outside of the primary program areas

**Key strategy 4:** Advocacy and Sector -wide support to influence policies and larger ICDS and RCH Programs

### ➤ Vistaar Project

USAID supports a Secretariat for the Coalition for Sustainable Nutrition Security in India through the Vistaar Project, a maternal, newborn and child health and nutrition project led by IntraHealth International. The purpose of this technical assistance project is to assist the Government of India and the State Governments of Uttar Pradesh and Jharkhand in taking knowledge to practice for improved maternal, newborn, and child health and nutritional status.

The key strategy for the project is to :

- ✓ Facilitating evidence reviews of maternal child health interventions or pilot efforts, which will be conducted by recognized public and private sector experts;
- ✓ Based on the recommendations from these expert reviews, supporting demonstration and learning projects (action research) to fill critical knowledge gaps in that theme area;
- ✓ Promotion of recommended models for adoption within NRHM; and
- ✓ Capacity building to support the adoption of the recommended models at scale.

<sup>14</sup> Primary Program Area: All the AWCs and blocks included as operational area under INHP I and II and now in INHP III is known as Primary Program Area (PPA). This includes 711 blocks of 75 districts in eight states namely Andhra Pradesh (AP), Chhattisgarh (CG), Jharkhand (JH), Madhya Pradesh (MP), Orissa (OR), Rajasthan (RA), West Bengal (WB) and Uttar Pradesh (UP).

<sup>15</sup> Replication Area: On the request from Government of India, CARE is taking up the non-CARE blocks (283) in PPA to facilitate the replication of INHP good practices. In addition to this, CARE is providing replication support to additional blocks (303) in 21 new districts of Andhra Pradesh (AP) and Chhattisgarh (CG). These areas are known as Replication Areas but for the purpose of INHP III qualitative assessment, only AP and CG case would be considered.



These activities conducted for selected technical themes including:

- ✓ Growth promotion and complementary feeding;
- ✓ Anemia prevention and treatment;
- ✓ Newborn care and skilled birth attendance;
- ✓ Delay of marriage and first birth;
- ✓ Performance improvement and support to community health functionaries; and
- ✓ Village health planning and monitoring.

The analysis of innovative models of direct implementation and long term technical assistance to strengthen the ICDS system has been used to build upon the strategies while proposing the recommendations.

### 16.3 SWOT Analysis

ICDS program has emerged from small beginnings in 1975 to become India's flagship nutrition programme. ICDS is potentially well poised to address some of the underlying causes of undernutrition amongst children in India. The program adopts a multi-sectoral approach to child well being, incorporating health, education and nutrition interventions, and is implemented through a network of anganwadi centers (AWCs) at the community level.

The ICDS Scheme has undergone massive expansion ever since it was launched. Till the end of the 9th Five Year Plan (1997-2002), the scheme was gradually expanded to 5652 projects (blocks) across the country. It has been felt that mere physical expansion of the ICDS programme is not, however, enough to combat the complex problem of malnutrition. The programme has reached a stage where it has become essential to harmonize the expansion of the programme and its content enrichment in order to accelerate the implementation in achieving the core objectives, especially to reduce the child malnutrition and help reduction in mortality rates. The SWOT analysis presents the comparative strength, weakness, opportunity and threat analysis for the same.



<p><b>STRENGTH</b></p> <ul style="list-style-type: none"> <li>✚ Flagship Nutrition Programme</li> <li>✚ Woman work force presence at Village level</li> <li>✚ Strengthened coordination with ANM and ASHA at village level specially for NHD fine-tuning with different departments</li> <li>✚ Community involvement and contact</li> <li>✚ Gone through several adaption and massive expansion ever since it was launched.</li> </ul>	<p><b>WEAKNESS</b></p> <ul style="list-style-type: none"> <li>✚ Lack of Infrastructure i.e. Building and Supplies</li> <li>✚ Over burdened ICDS functionaries</li> <li>✚ Lack of Convergence</li> <li>✚ Failure in reducing Malnutrition</li> <li>✚ Centralised Procurement and Distribution system</li> <li>✚ Lack of community ownership and participation</li> </ul>
<p><b>OPPORTUNITY</b></p> <ul style="list-style-type: none"> <li>✚ Better Targeting- Putting in more intensive efforts and resources to specific age group and in the high burden areas.</li> <li>✚ Stronger convergence at the operational level to maximize the potential for nutrition outcomes</li> <li>✚ Partnership between communities and ICDS functionaries to nurture a sense of community ownership</li> <li>✚ Sustainability of changes to positive nutrition, health and education seeking behavior as also mother and child development status;</li> <li>✚ Decentralization of programme support activities;</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>✚ Existence of too many vacancies especially in the supervisors' cadre</li> <li>✚ Disillusion due to participation in too many programme implementation</li> <li>✚ Existing skill set specifically to tackle issues of malnutrition</li> </ul>

The analysis of comparative strength, weakness, opportunity and threat analysis for ICDS programme has been used to build upon the strategies while proposing the recommendations.

## Chapter XVII

### Impact Indicators: Malnutrition and Anemia

#### 17.1 Malnutrition

Infant and young child malnutrition has profound negative consequences on the health and development of a child and thus of 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]<sup>16</sup>. Hence one of the key objectives of ICDS to improve the nutritional status of children or to reduce the malnutrition. Health or nutritional status of a child is usually assessed in three ways: through measurement of growth and body composition (anthropometric indicators); through analysis of the biochemical content of blood and urine (biochemical indicators); and through clinical examination of external physical signs of nutrient deficiencies (clinical indicators). Among the three method of assessment, anthropometric measurement is a common and easy way to assess health and nutrition status. The other two methods are less practical because of the logistical difficulties and because data collection and analysis is expensive and time consuming.

Malnutrition through anthropometric measurement consist of three indicators (Weight for Age: underweight, Weight for Height: Wasting, Height for Age: Stunting). A child is considered malnutrient if any of these indexes fall below refers two standard deviations ( $<-2SD$ ) of the median value of the WHO's new standard<sup>17</sup> 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. Severe malnutrition is when the indexes fall below 3 SD of the median value<sup>18</sup>.

Study compared the nutritional impact result as measured by WHO's new global reference standard. In absence of any baseline data study has taken NFHS-III (2005-06) data as the baseline data and malnutrition impacts are assessed by comparing the present study impact data with the NFHS-III data<sup>19</sup>.

It is important to point that typically, growth faltering begins at about six months of age, as children transition to foods that are often inadequate in quantity and quality, and increased exposure to the environment increases their likelihood of illness. A comparative assessment of nutritional impact shows that malnutrition had reduced around 4 percent point for children less than six month and around 3 percent point for children aged 6-11 months.

<sup>16</sup> Jones, G. et al. How many child deaths can we prevent this year? Lancet 362, 65-71 (2003).

<sup>17</sup> The new WHO Child Growth Standards are the result of an intensive study initiated by WHO in 1997 to develop a new international standard for assessing the physical growth, nutritional status and motor development in children from birth to five years of age. As a result, The Multicentre Growth Reference Study (MGRS) has been a community-based, multi country project conducted in Brazil, Ghana, India, Norway, Oman, and the United States ([http://www.who.int/childgrowth/1\\_what.pdf](http://www.who.int/childgrowth/1_what.pdf))

<sup>18</sup> (<http://www.adbi.org/discussionpaper/2005/01/14/869.malnutrition.poverty.indonesia/measuring.malnutrition/>)

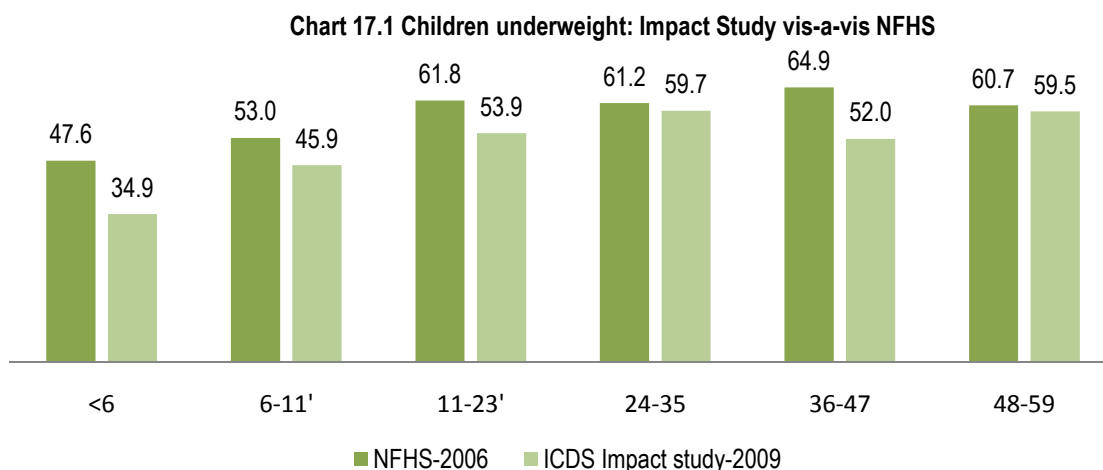
<sup>19</sup> The 2005-06 National Family Health Survey (NFHS-3) is the third in a series of national surveys; earlier NFHS surveys were carried out in 1992-93 (NFHS-1) and 1998-99 (NFHS-2). All three surveys were conducted under the stewardship of the Ministry of Health and Family Welfare, Government of India, with the International Institute for Population Sciences, Mumbai, serving as the nodal agency. In NFHS-3, 18 research organizations conducted interviews with more than 230,000 women age 15-49 and men age 15-54 throughout India. <http://www.nfhsindia.org/nfhs3.html>



It is also well established that malnutrition among children occurs almost entirely during first two years of life and is virtually irreversible after that. Obviously, it tremendously impacts development outcomes, as more than 90 per cent of the brain actually develops during first two years. It impairs cognitive development, intelligence, strength, energy and productivity. Thus malnutrition status across 12-23 month aged children becomes central to the reduce malnutrition among children. Findings show a significant decrease of around eight percentage point from 61.8 percent to 53.9 percent in 12-23 month aged children. Children’s nutritional status in Madhya Pradesh has also improved since NFHS-3 differentially across 36-47 month aged children and children aged 48-59 months. In all, the underweight has decreased overall for children aged 0-5 year from 60 percent in NFHS-2006 to 48 percent in 2009.

**Table 17.1: Percent children underweight vis-à-vis age of child**

Age in Months	NFHS-2005-06 <sup>20</sup> Percent underweight (Below -2SD)	ICDS IMPACT STUDY 2009 Percent underweight (Below -2SD) <sup>21</sup>	% Change in children underweight
<6	47.6	34.9	12.7
6-11	53.0	45.9	7.1
12-23	61.8	53.9	7.9
24-35	61.2	59.7	1.5
36-47	64.9	52.0	12.9
48-59	60.7	59.5	1.2
<b>Overall underweight children 0-5 year</b>	<b>60.0</b>	<b>48.1</b>	<b>11.9</b>
<b>N</b>	<b>2910</b>	<b>2978</b>	



<sup>20</sup> [www.nfhsindia.org/mpreport](http://www.nfhsindia.org/mpreport)

<sup>21</sup> Children underweight has been computed using WHO new standard and using WHO Anthro software designated for the computation of malnutrition using reference population.



### 17.1.1 Severely Underweight Children

Study also looked and analyzed the proportion of severely underweight children across different age categories. Findings show a decrease of around two percentage point from 28.6 percent to 27.2 percent in 12-23 age groups. Children’s nutritional status in Madhya Pradesh has also improved since NFHS-3 differentially across 36-47 aged children and children aged 48-59. In all, the severe underweight has decreased overall for children aged 0-5 year from 27 percent in NFHS-2006 to 23 percent in 2009.

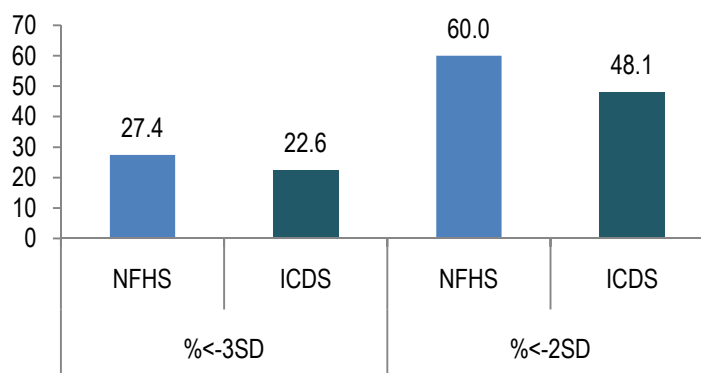
**Table 17.2: Percent of severely underweight children vis-à-vis age of children**

Age in Months	NFHS-2005-06* Percent Severely underweight (Below -3SD)	ICDS IMPACT STUDY 2009 Percent Severely underweight (Below -3SD)	% Change in severely underweight
<6	19.3	15.2	4.1
6-11	20.2	20.0	0.2
12-23	28.6	27.2	1.4
24-35	31.5	27.6	3.9
36-47	29.2	28.2	1.0
48-59	27.3	28.8	-1.5
<b>Overall severely underweight children 0-5 year</b>	<b>27.4</b>	<b>22.8</b>	<b>4.6</b>
<b>N</b>	<b>2910</b>	<b>2978</b>	

\*NFHS-III/MP Report

In order to assess the underweight children as of now study projected the population by taking census 2001 population as base. The population is then projected by using the exponential growth rate and projected the population for 2009. Further based on the projected population and fraction of children aged 0-5 year in the population it is assumed that around 10264951 children aged 0-5 shall be there as of 2009. Based on the overall malnutrition rate among children aged 0-5 found out in the impact study, it is estimated that around 49,37,442 children are underweight, out of which around 23,40,409 are severely malnourished.

**Chart 17.2 Overall Underweight (0-5 yrs)**



**Table 17.3: State estimates of underweight children**

State	Population Census 2001 <sup>22</sup>	Linear growth rate	Per '000	Exp growth rate (for eight years)	Population 2009	Children 0-6
MP	6,03,48,023	24.34	0.02434	1.215	7,33,21,082.6	10264951.6
<b>Underweight Children (48.1%)</b>						<b>49,37,442</b>
<b>Severely Underweight Children (22.8%)</b>						<b>23,40,409</b>

\*NFHS-III/MP Report

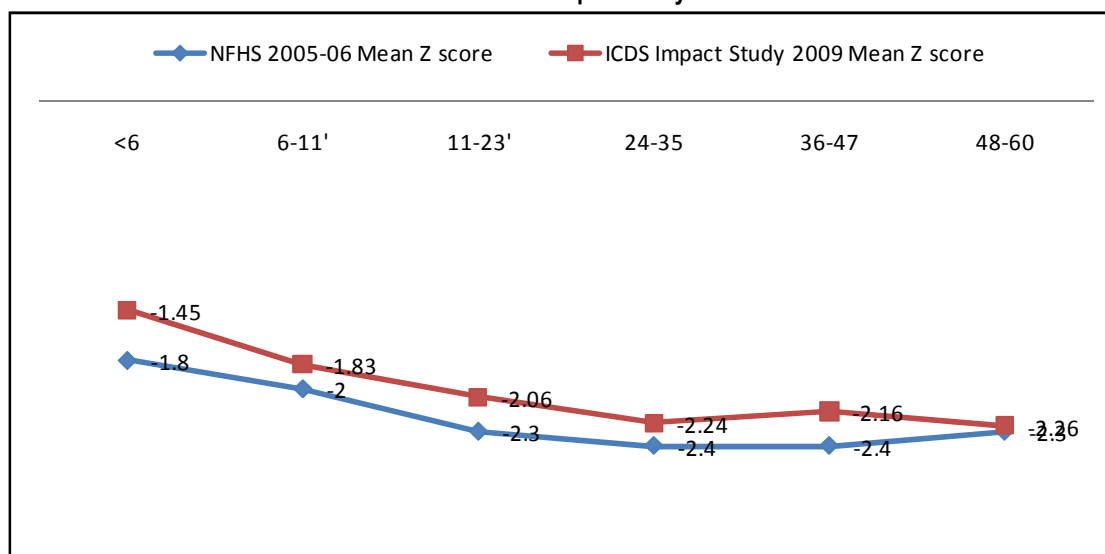
Study further compared the mean Z score for each category which is being used to assess the malnutrition vis a vis the NFHS-III data and in line with the result shown by NFHS-III study the mean z score for all age categories are less as compared to the NFHS-III. This further corroborates the result that underweight status of children across various age category and significantly across the 12-23 age category has improved since NFHS-III.

**Table 17.4: Mean Z score for underweight by age groups**

Age in Months	NFHS 2005-06* Mean Z score	ICDS Impact Study 2009 Mean Z score
<6	-1.8	-1.45
6-11	-2.0	-1.83
12-23	-2.3	-2.06
24-35	-2.4	-2.24
36-47	-2.4	-2.16
48-60	-2.3	-2.26

\*NFHS-III/MP Report

**Chart 17.3 Mean z-score: Impact study vis-a-vis NFHS**



<sup>22</sup> The census 2001 figure for the Madhya Pradesh has been used as the reference for the projection and Crude birth rate has been taken as the basis to compute the children under age 5 years.





### 17.1.2 Tracking Impact: Stunting

Another important indicator for nutritional assessment is stunting, or low height for age, which is caused by long-term insufficient nutrient intake and frequent infections. Stunting generally occurs before age two, and effects are largely irreversible. These include delayed motor development, impaired cognitive function and poor school performance. Nearly one third of children under five in the developing world are stunted.

Study compared the nutritional impact result as measured by WHO's new global reference standard. In absence of any baseline data study has taken NFHS-III (2005-06) data as the baseline data and malnutrition impacts are assessed by comparing the present study impact data with the NFHS-III data.

A comparative assessment of nutritional impact for stunting shows that stunting had remained constant for both children less than six month and children aged 6-11 months. Thus malnutrition status across 12-23 month aged children becomes central to the reduce malnutrition among children. Findings show a significant decrease of around seven percentage point from 57.3 percent to 47.4 percent in 12-23 age groups. Children's nutritional status in Madhya Pradesh has also improved since NFHS-3 differentially across 36-47 aged children and children aged 48-59. In all, the stunting has improved overall for children aged 0-6 year from 49 percent in NFHS-2006 to 39 percent in 2009.

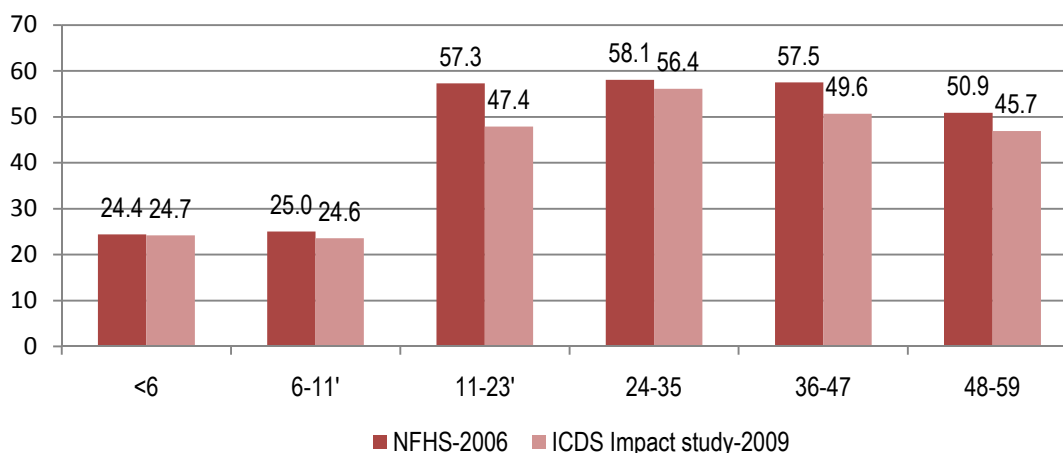
**Table 17.5: Stunting vis-a-vis age of child**

Age in Months	NFHS-2005-06* Percent Stunted (Below -2SD)	ICDS IMPACT STUDY 2009 Percent Stunted (Below -2SD)	% Change in Stunting
<6	24.4	24.7	-0.3
6-11	25.0	24.6	0.4
12-23	57.3	47.4	9.9
24-35	58.1	56.4	1.7
36-47	57.5	49.6	7.9
48-59	50.9	45.7	5.2
<b>Overall Stunting (0-5 year)</b>	<b>49.3</b>	<b>38.7</b>	<b>10.6</b>

\*NFHS-III/MP Report



Chart 17.4 Stunting: Impact Study vis-a-vis NFHS



**Severely Stunted Children**

Study also looked and analyzed the proportion of severely stunted<sup>23</sup> children across different age categories. Findings show a decrease of around two percentage point from 28.6 percent to 27.8 percent in 12-23 age groups. Children’s nutritional status in Madhya Pradesh has also improved since NFHS-3 differentially across 36-47 aged children and children aged 48-59. In all, the severe malnutrition has improved overall for children aged 0-5 year from 26 percent in NFHS-2006 to 18 percent in 2009.

Table 17.6: Severely stunted children vis-a-vis age of child

Age in Months	NFHS-2005-06* Percent Severely Stunted (Below -3SD)	ICDS IMPACT STUDY 2009 Percent Severely Stunted (Below -3SD)	% Change in Severe Stunted
<6	9.9	9.6	0.3
6-11	9.2	8.6	0.6
12-23	28.6	27.8	0.8
24-35	33.2	31.8	1.4
36-47	31.3	20.1	11.2
48-59	28.2	20.0	8.2
<b>Overall Severely Stunted (0-5 Year)</b>	<b>26.3</b>	<b>18.3</b>	<b>8.0</b>

\*NFHS-III MP State Report

**Estimate of Stunted and Severely Stunted Children**

In order to assess the malnourished children as of now study projected the population by taking census 2001 population as base. The population is then projected by using the exponential growth rate and projected the population for 2009. Further based on the projected population and fraction of children aged 0-6 in the population it is assumed that around 11012826 children aged 0-6 shall be there as of 2009. Based on the overall malnutrition rate among children aged 0-6 found out in the impact study, it is estimated that around 39,72,536 children are stunted, out of which around 18,78,486 are severely malnourished.

<sup>23</sup> ([www.biomedcentral.com/1471-2431/9/64](http://www.biomedcentral.com/1471-2431/9/64), [www.thelancet.com/.../PIIS0140-6736\(02\)07744-9](http://www.thelancet.com/.../PIIS0140-6736(02)07744-9)).



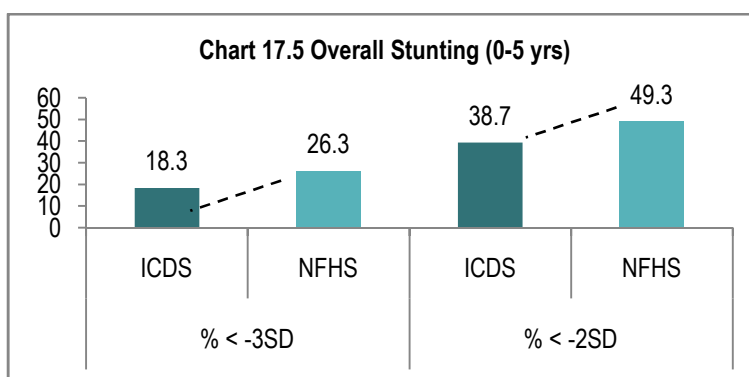
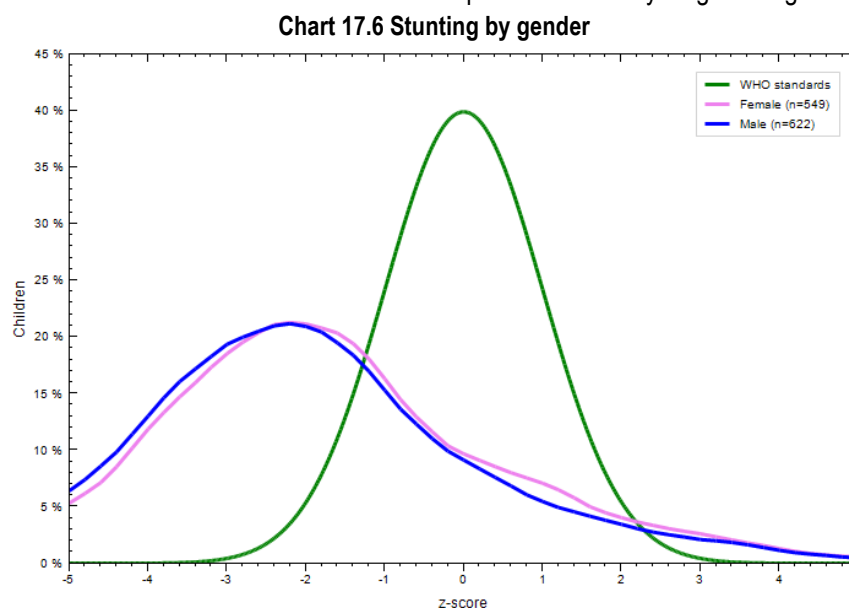


Table 17.7: State estimates of stunted children

State	Population Census 2001 <sup>24</sup>	Linear growth rate	Per '000	Exp growth rate (for eight years)	Population 2009	Children 0-6
MP	6,03,48,023	24.34	0.02434	1.215	7,33,21,082.6	10264951.6
<b>Stunted Children (46.9%)</b>						<b>39,72,536</b>
<b>Severely Stunted children (20.5%)</b>						<b>18,78,486</b>

### 17.1.3 Stunting: Exploring Pattern by Gender

Study also tried to assess the nutritional assessment by gender and as shown in other studies malnutrition status for both boys and girls are almost similar. The graph below present the malnutrition status of boys and girls across 6-23 month age categories in comparison to who standard normal curve. As can be seen from the data there is no significant differential in malnutrition as both the curves overlap as measured by height for age for boys and girls.



<sup>24</sup> The census 2001 figure for the Madhya Pradesh has been used as the reference for the projection and Crude birth rate has been taken as the basis to compute the children under age 5 years.



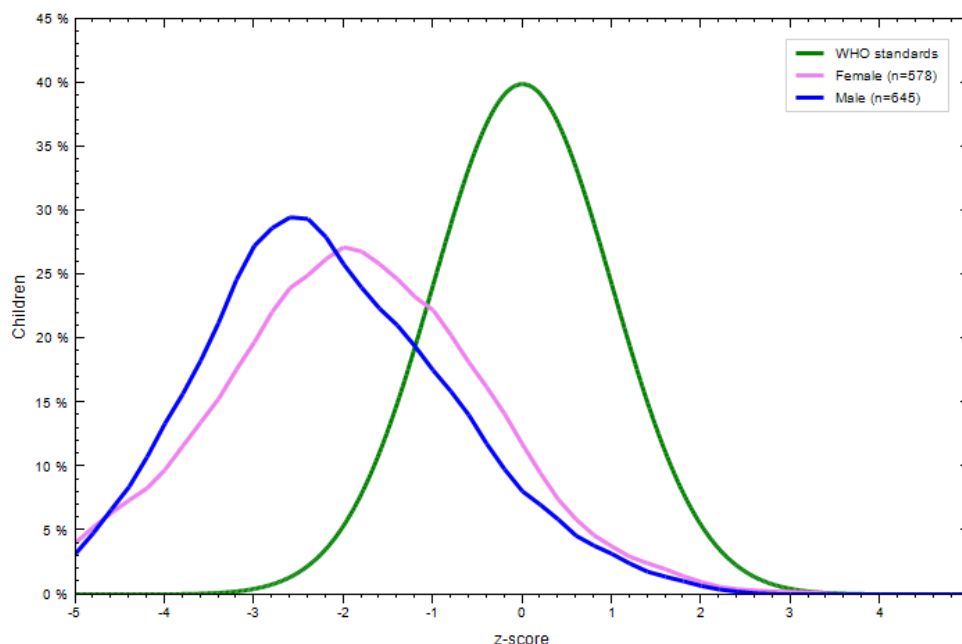
## MALNUTRITION PROFILING

Study made an attempt to profile the malnutrition w.r.t to key socio-demographic and location variable. This section presents the malnutrition profile<sup>25</sup> by Gender, Caste category and also by Districts.

### 17.1.4 Malnutrition: Exploring Pattern by Gender

Study also tried to assess the nutritional assessment by gender and as shown in other studies malnutrition status for both boys and girls are almost similar. The graph below present the malnutrition status of boys and girls across 6-23 month age categories in comparison to who standard normal curve. As can be seen from the data there is no significant differential in malnutrition as measured by weight for age for boys and girls.

Chart 17.7 Malnutrition by gender



### 17.1.5 Malnutrition: Exploring Pattern by Caste Categories

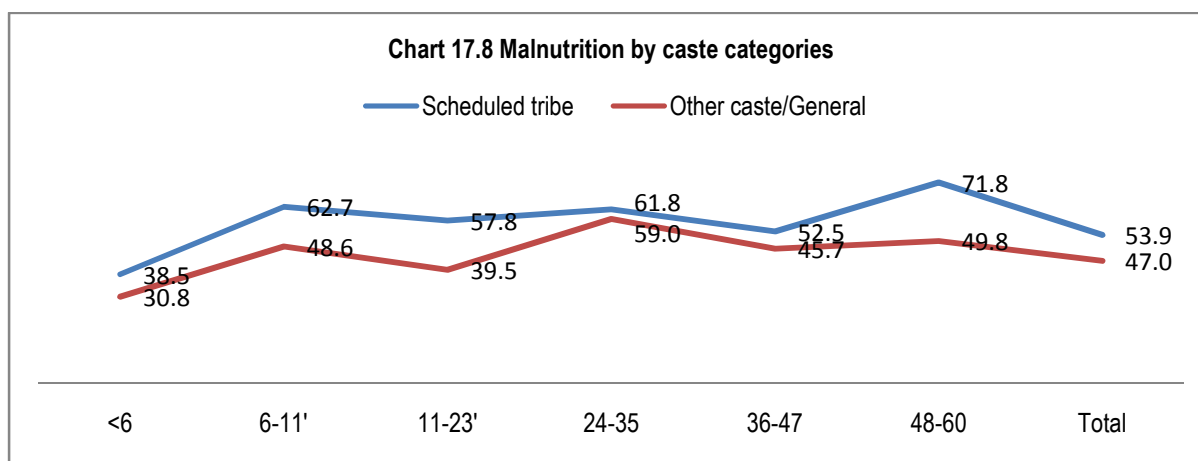
Study also made an attempt to look at the malnutrition by various caste category across various group and as can be seen from the trend malnutrition is slightly higher in case of scheduled tribe than in case of scheduled caste and then in case of backward caste. Though when malnutrition is compared across scheduled tribe and general caste a significant differential can be observed highlight that caste does have some bearing on the malnutrition status but malnutrition is a phenomenon which is well spread across all caste categories.

<sup>25</sup> Malnutrition profile as measured by WAZ i.e. weight for age indicator



**Table 17.8: Malnutrition by caste categories**

Caste	<6	6-11	11-23	24-35	36-47	48-60	Total
Scheduled tribe	38.5	62.7	57.8	61.8	52.5	71.8	53.9
Scheduled caste	33.4	47.1	55.5	68.0	49.5	61.2	51.7
Other backward caste	33.9	34.1	56.1	56.4	57.1	55.5	50.3
Other caste	30.8	48.6	39.5	59.0	45.7	49.8	47.0
N	1033	317	562	419	321	456	3108



### 17.1.6 Exploring High Burden Malnourished Area/Pockets

In order to assess the pockets of malnutrition, study made an attempt to desegregate the malnutrition data by districts. As mentioned in the sampling design and methodology, study covered 27 districts of the state and an attempt has been made to explore the high burden areas out of the districts covered for the survey. Study presents the malnutrition burden by districts and for analysis all districts having higher malnutrition than the state average found in the study has been treated as high burden districts. As can be seen from the findings that Jhabua as the highest malnourished districts having 63% malnourished children followed by Alirajpur and Siddhi. The high burden district has been depicted by the shaded category starting from Guna districts.

**Table 17.9: District-wise distribution of malnourished in the state**

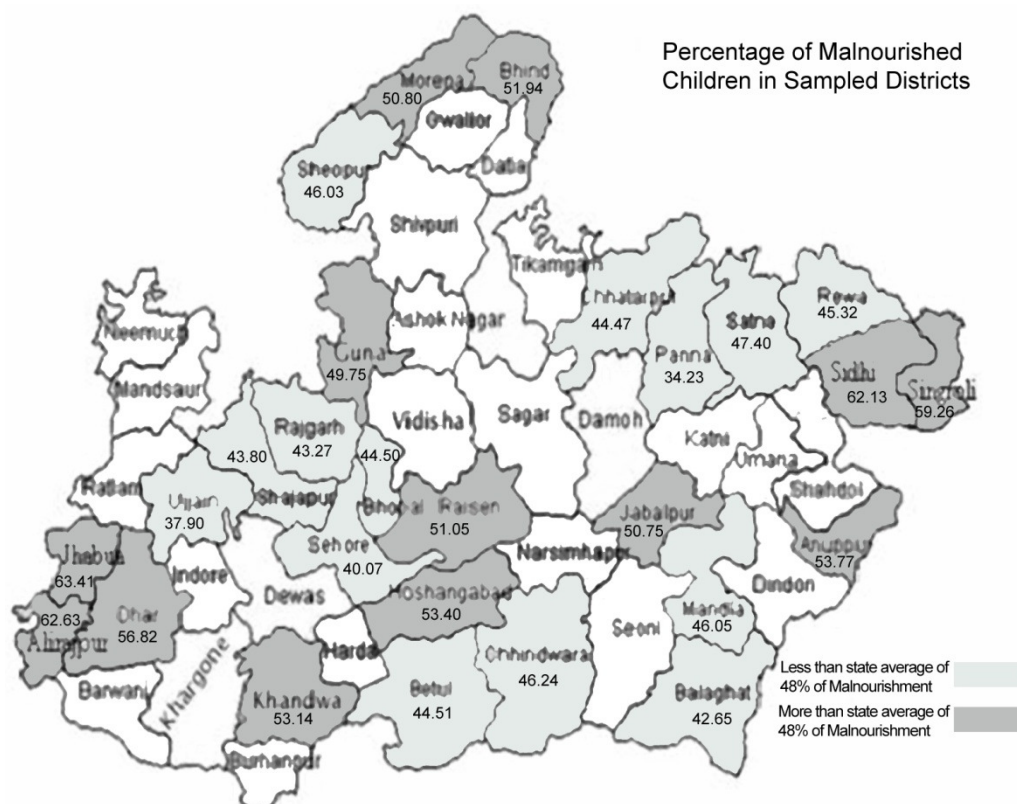
S No	% Malnourished Children (Under -3SD)	District Name
1	34.23582	PANNA
2	37.90931	UJJAIN
3	40.07504	SEHORE
4	42.65964	BALAGHAT
5	43.27133	RAJGARH
6	43.80179	SHAJAPUR
7	44.47619	CHHATARPUR



8	44.50676	BHOPAL
9	44.51311	BETUL
10	45.32461	REWA
11	46.03502	SHOEPUR
12	46.05685	MANDLA
13	46.24839	CHINDWARA
14	47.40102	SATNA
15	49.75917	GUNA
16	50.75896	JABALPUR
17	50.80116	MORENA
18	51.05935	RAISEN
19	51.94583	BHIND
20	53.1499	KHANDWA
21	53.40827	HOSHANGABAD
22	53.77533	ANOOPPUR
23	56.8234	DHAR
24	59.26215	SINGRAULI
25	62.13142	SIDHI
26	62.63769	ALIRAJPUR
27	63.4158	Jhabua

Study also made an attempt to depict the high burden area geographically through map. The first map showcase the sample districts whereas the second map shows the high burden districts in shade and their geographical location.





## 17.2 Anemia

Anemia is a major health problem in Madhya Pradesh, especially for women and children. Anemia can result in maternal mortality, weakness, diminished physical and mental capacity, increased morbidity from infectious diseases, perinatal mortality, premature delivery, low birth weight, and (in children) impaired cognitive performance, motor development, and scholastic achievement. In order to compute the anemic status study has categorized the anemic data into three categories of Mild (10.0-11.9 g/dl), Moderate (7.0-9.9g/dl), Severe (<7.0 g/dl) in congruence with the categories used in NFHS-III<sup>26</sup>.

### 17.2.1 Prevalence of Anemia in Adolescent

More than half of adolescent girl (57 percent) in Madhya Pradesh have anemia, including 39 percent with mild anemia, 18 percent with moderate anemia, and 2 percent with severe anemia. Study also compared the adolescent in the 15-19 age categories to compare with NFHS-III data and it can be inferred that anemic status of the adolescent girl over last three year has changed only slightly by only 2 percentage point highlighting the need for strategic focus to reduce anemia.

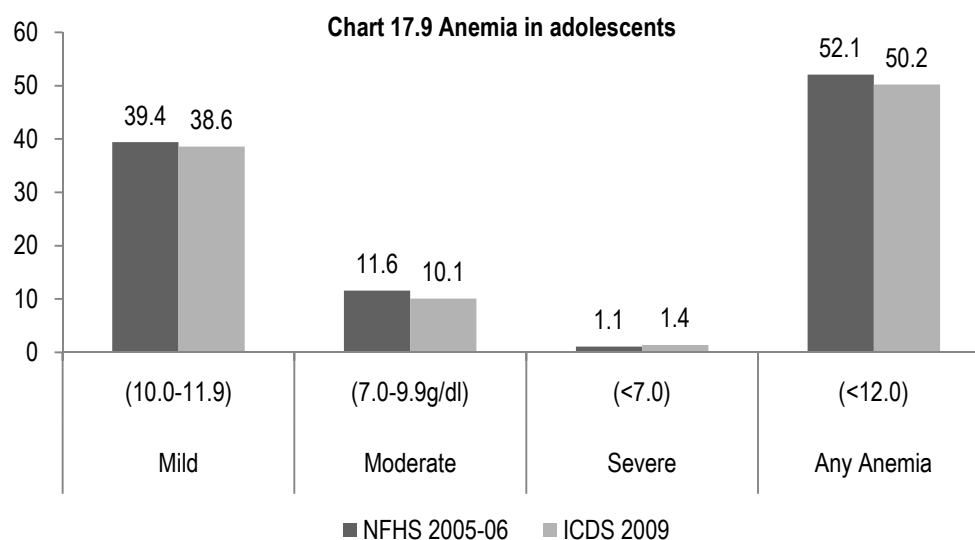
<sup>26</sup> The categorization is in line with the WHO's Hemoglobin thresholds used to define anemia (1 g/dL = 0.6206 mmol/L)





**Table 17.10: Anaemia in adolescent**

Age in years	Mild (10.0-11.9)	Moderate (7.0-9.9g/dl)	Severe (<7.0)	Any Anemia (<12.0)
<b>NFHS 2005-06</b>				
Age 15-19	39.4	11.6	1.1	52.1
<b>ICDS Impact Study 2009</b>				
Age 15-19	38.6	10.1	1.4	50.2
Age 10-15	40.3	19.8	1.8	61.9
<b>ICDS Impact Study 2009</b>				
Adolescent group (10-19)	39.8	15.1	1.7	56.7



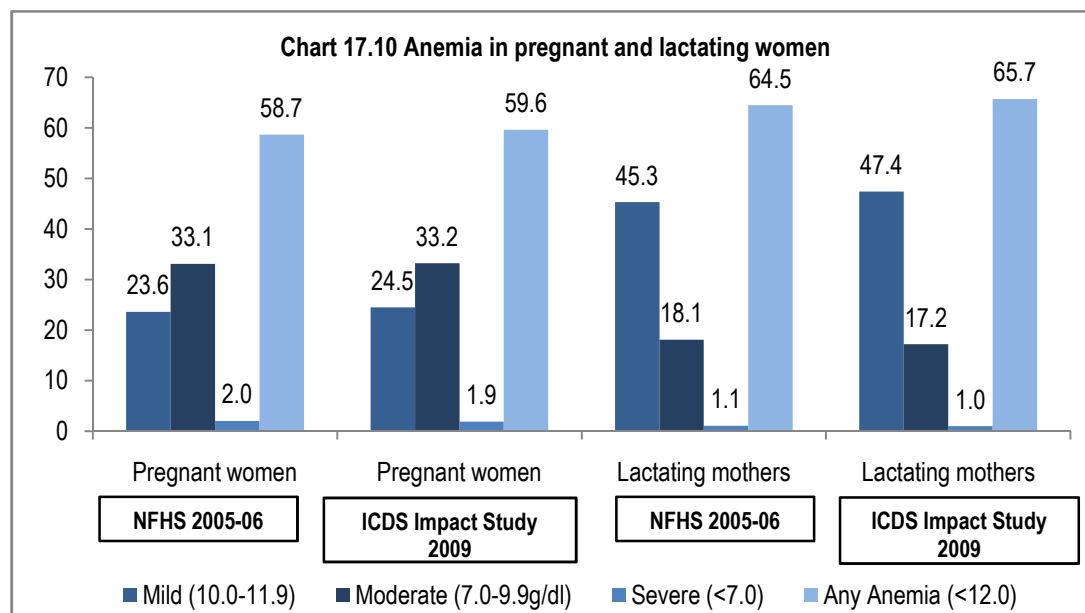
**17.2.2 Prevalence of Anemia by Maternity Status**

Study further assessed the anemic status by maternity status. Findings show that sixty percent of women who are pregnant are anemic which is almost same as indicated in NFHS-III which signifies that anemic status has not changed in last three years. The findings are further corroborated by the prevalent anemic status among women who are breastfeeding as around 65 percent of women who are breastfeeding are anemic which though is slightly lower than the NFHS-III figure of 66 percent but still is on higher side.



**Table 17.11: Anaemia in pregnant and lactating mothers**

Mother category	Mild (10.0-11.9)	Moderate (7.0-9.9g/dl)	Severe (<7.0)	Any Anemia (<12.0)
<b>NFHS 2005-06</b>				
Pregnant women	23.6	33.1	2.0	58.7
<b>ICDS Impact Study 2009</b>				
Pregnant women	24.5	33.2	1.9	59.6
<b>NFHS 2005-06</b>				
Lactating mothers	47.4	17.2	1.0	65.7
<b>ICDS Impact Study 2009</b>				
Lactating mothers	45.3	18.1	1.1	64.5

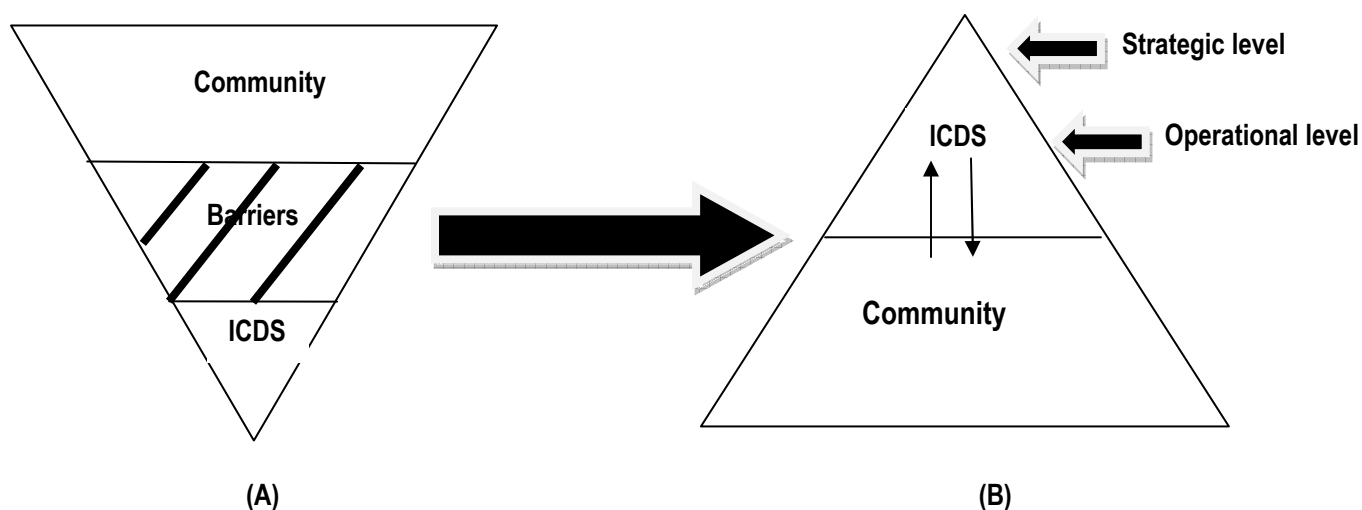


## Chapter XVIII Recommendations

ICDS program has emerged from small beginnings in 1975 to become India's flagship nutrition programme. ICDS is potentially well poised to address some of the underlying causes of undernutrition amongst children in India. Despite scoring on several counts during its three decades of implementation, there remain some major challenges with regard to the high burden of child malnutrition. It is against this background and based on the analyses presented in the proceeding chapters, present chapters explore the probable strategies and activities for strengthening the implementation of ICDS.

### Conceptual Paradigm

In order to suggest the key strategy and activities to strengthen the implementation of ICDS, study first explored the conceptual paradigm looking at the current problem scenario and probable solution. The two triangles illustrate the schematic representation of the recommendation based on the study findings and consultative discussion process with multiple stakeholders. The first triangle illustrates the problem pyramid wherein community is at top and ICDS services are at the bottom of the pyramid and connect between them is hindered by barriers of exclusion, coverage, outreach and quality of services being rendered. In order to address the issues, study recommends intervention at two levels depicted in inverted solution pyramid i.e. at Strategic level and Operation level. The recommendations hence are segregated into intervention at strategic level and intervention at operational level to strengthen the operational system



**Figure 4: Conceptual Paradigm**

**Based on the conceptual paradigm presented above, study proposes a three pronged strategy to strengthen the implementation of ICDS. Study recommends a three pronged strategy mentioned below and discussed in detail in the chapter based on the findings of the study and consultative discussion process:**

- ✚ Need of a Paradigm/Strategic shift to focus on changing Household level feeding behavior and reducing incidence of infection
- ✚ Strengthening the existing Localized Food Model to ensure continuous supply of quality food acceptable to community and monitored by community
- ✚ Building Operational Efficiency: Strengthening existing infrastructure and support for robust monitoring and supervision.

### 18.1 Need for a Paradigm/Strategic shift

The key focus of ICDS programme is to reduce child mortality. It is widely believed globally that in order to reduce child mortality it is important to focus on three essential reasons of child mortality i.e. Malnutrition, Post neo natal mortality and Neonatal mortality. As mentioned above, despite scoring on several counts during its three decades of implementation, there remain some major challenges with regard to the high burden of child malnutrition. In view of the foregoing, it has been felt that a paradigm shift in the ICDS programme implementation framework.

The impact assessment findings have clearly shown that the Incidence of malnutrition is not only a function of poverty and deprivation but factors such as feeding behavior, sanitation and vaccination are also key determinants of malnutrition. Hence in order to reduce malnutrition in a sustained manner a strategic shift is required wherein programme shall aspire to focus on the behavior change of the target group. Hence Looking at the mandate and resource available, focus shall be strongly on two components i.e. changing household level feeding practices with strong focus on under 2 year children and in reducing the incidence of infection. The next section details out the strategies briefly:

#### ➤ Changing Household Level feeding behavior

It is also well established that malnutrition among children occurs almost entirely during first two years of life and is virtually irreversible after that. Obviously, it tremendously impacts development outcomes, as more than 90 per cent of the brain actually develops during first two years. Thus it is important that specific emphasis shall be on under 2 year children to reduce malnutrition. Further it is also widely established through findings in the report that food provided by ICDS alone is not going to affect the nutrition status, thus becomes imperative, that special focus shall be on changing household level feeding behavior. The objective shall be to establish AWC as medium of “Nutrition counseling and outreach” rather than just being the “Food distribution centre”. The specific activities which shall be done are:

- ✓ Increased Home visit by AWW with strong quality counseling component
- ✓ Supportive Supervision of AWW by supervisor specifically for counseling during Home visit contact
- ✓ Focused monitoring and consultative discussion about the results at sector and block level meetings



➤ **Reducing incidence of infection**

In order to reduce neonatal and post neonatal mortality, one of the strategies shall be to ensure reducing the incidence of infection. AWC not being the technical worker can contribute effectively to the preventive component of the infection. In consonance, the key focus shall be on:

- ✓ Ensuring essential new born care through home visit during the time of delivery and first week of delivery
- ✓ Increased home visit in late pregnancy and new born period
- ✓ Emphasizing on immunization by contribution to consistency of NHD

**18.1.1 Prerequisite for Paradigm Shift**

In order to ensure paradigm/strategic shift it is quintessential to enhance home visit and to provide quality counseling during home visit to bring out change in Household level feeding behavior. In order to position AWW as change agent trying to change feeding behavior, specific skill set regarding the visit and counseling needs to be built upon as discussed in next section.

➤ **Enhancing outreach with Quality Advice: Increasing Home Visit**

The analyses shows that that almost 46 percent pregnant women and 67 percent lactating women have received supplementary nutrition for themselves; and 55 percent of mothers of children 6 months to 3 years and 72 percent of mothers of children 3-6 years have received supplementary nutrition for the children. Also, this proportion varies in urban, rural and tribal blocks, the highest receipts being reported in tribal blocks followed by rural and lowest in urban blocks. This reflects on the need for enhancing outreach of service delivery so as to reach all the intended audience.

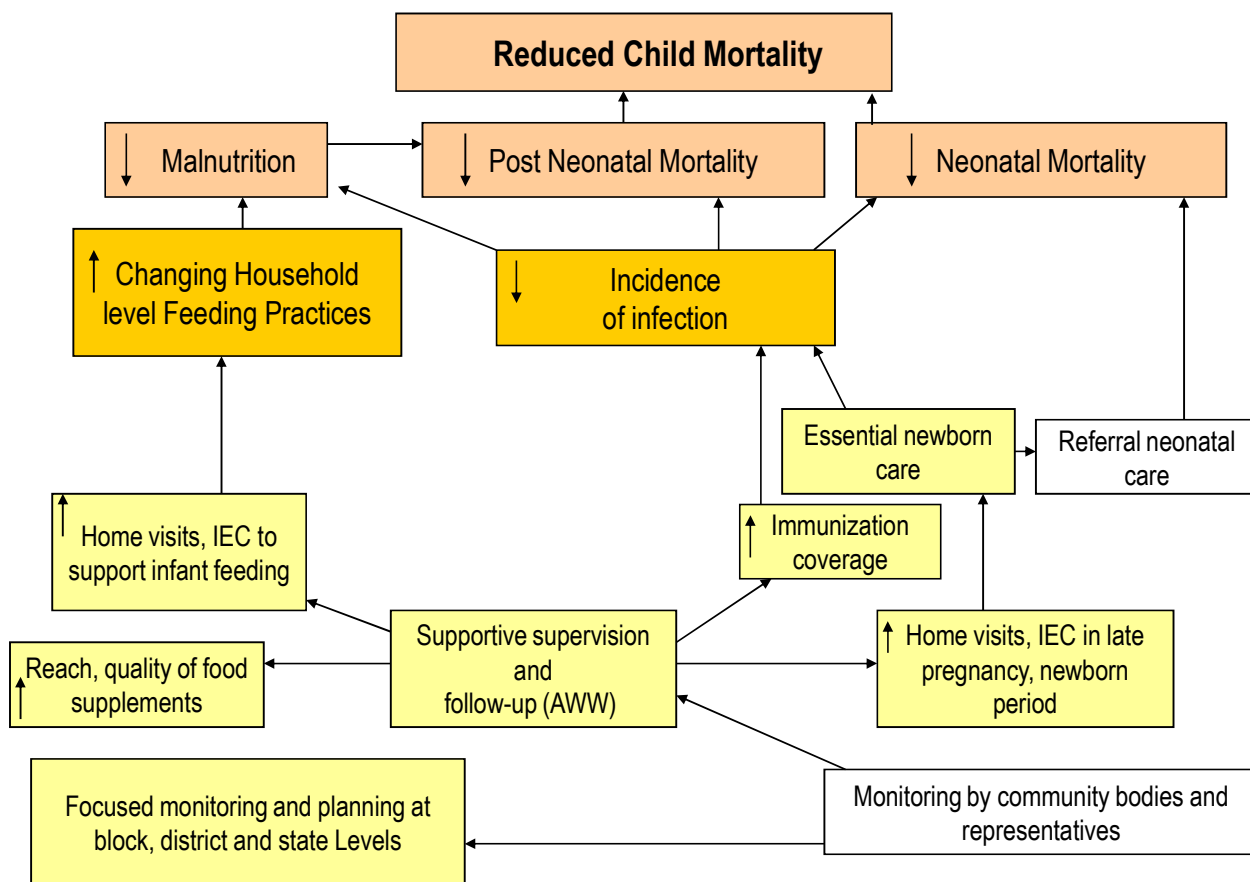
This at the first step needs to reposition the intervention to those that actually feel the need for supplementary nutrition. This needs to be complementing by means to enhance outreach to the redefined audience. The two main reasons cited for non-utilization are- distance of the AWC from the household and non-availability of family members to collect food. The possible alternative in this reference could be the Anganwadi Sahayika delivering packed food to the excluded households on weekly basis. This is a plausible alternative as the total number of target group in a given AWC would be a reachable number. Besides reaching out to the targeted beneficiary through increased home visit, it is also quintessential to provide the quality counseling and advice for new born care and feeding behavior at household level.

➤ **Building Capacities and Addressing Human Resource Issues**

In order to position Anganwadi as a change agent to change the feeding behavior at the household level, it is imperative that capacities of the AWW and of supervisory staff are build accordingly. It is imperative to revise the training curriculum and to include specific session on counseling and interpersonal communication to position them more effectively as a change agent.



Besides, building the capacity, one of the prerequisite is to fill vacancy at all the levels. Analysis of departmental data reveals that almost 20 percent of the sanctioned post of CDPOs and 60 percent of sanctioned posts for ACDPOs are lying vacant. However at the AWW and AWH level, staffing almost adequate with the figures at almost 98 percent and 97 percent. With the gap being substantial at the level of CDPO and ACDPO, the gap need be fulfilled at the earliest.



**Figure 5: Schematic Representation of Recommendations for Paradigm Shift**

The second broad strategy to complement the household level feeding behavior change is to strengthen the existing Localized Food Model Strategy.<sup>27</sup>

## 18.2 Localized Food Model Strategy

Local food model currently being implemented in MP envisaged building on the strength of Self Help Groups banking on convergence with Panchayat Raj Institution. Currently, Take home ration for pregnant and lactating women and food for spot consumption for children aged more than 3 years and less than 6 years is being distributed through Local Food Model. Whereas, weaning food for children aged more than 6 month and less than 3 years are being distributed through MP State Agro Industries.

### ➤ **Strengthening Local Food Model: Integrating the weaning food component for less than 3 years in Local Food Strategy**

It is important to point that the critical age group for malnutrition are children less than 3 years the current local food model focusing on pregnant women, lactating women and 3- to 6-year-olds has little relevance to the underlying issues of childhood malnutrition. It is thus quintessential to integrate the weaning food component for less than 3 years in Local Food strategy. It will not only ensure the uniformity in distribution but also in viability of existing local institution as they will have more volume and hence more economies of scale.

### ➤ **Enhance community participation and Making Angandwadi's more accountable to the clients**

Localized Food Model currently provides the opportunity wherein communities through institution such as Mothers group are participating in deciding about the local food, the nature of preparation and also in deciding the menu. It needs to be further strengthened by regularly presenting the stock situation and procurement problem if any in Panchayat meeting.

Besides, it is suggested that communities through Mothers group shall also be involvement in outreach of services and hence monitoring the quality of services. A notional appreciation/reward shall also be given to well performing mothers group at block level.

### ➤ **Ensuring continuous supply of Supplementary nutrition to the Aanganwadis**

During the study it was found that almost 30 percent had stock of supplementary nutrition for one month whereas for almost 15 percent it was for more than one month. However, in almost 22 percent of the AWCs no stock was found. It was also reported that, in the last 3 months, the supply has been erratic in almost 67 percent of the AWCs. As mentioned above, both centralized and decentralized modes of procurement are being followed wherein centralized procurement is from MP Agro while the decentralized procurement is from local SHGs. In order to streamline the supply, it is imperative to integrate the weaning food component for less than 3 years in Local Food strategy. Besides it is imperative that a untied fund is given to the Panachayat and AWW

<sup>27</sup> Localized food model strategy shall





along with representative from Mothers group besides the advance given as of now to procure food so that even in case of delay in clearance of bills, food supply is not affected.

➤ **Ensuring Strong convergence with Panchayat : Active Involvement of Panchayat as a Check and Balances Mechanism**

Given the constitutional provisions of 11th Schedule, the Panchayat has been given executive control of various service delivery mechanisms at the Panchayat level. The existing institutional mechanism of MSS has de facto distanced itself from the constitutional entity responsible for local governance. This premise needs to be revisited. Panchayat is official representative of community voice and is the localized unit of self governance.

In current Local Food Model, Panchayat has an active role in procurement and disbursement but at field level the involvement is still at nascent stage. Thus It is important to actively involve Panchayat as a check and balance mechanism to ensure that localized food model is sustained and strengthened. The first step in this regard would be of making the presence of AWW and representative of Mothers Group in the Gram Sabhas and PRI meetings as mandatory. It is also suggested that food status and procurement status is voluntarily disclosed as practised in other departments/projects.

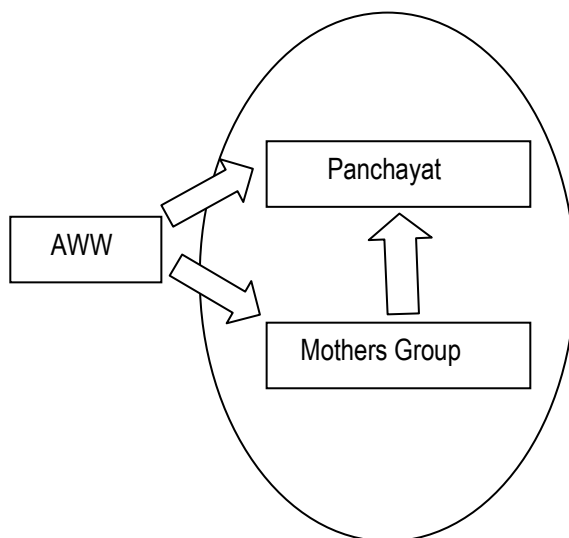
➤ **Community Based Monitoring and Evaluation System**

Community based monitoring system has been implemented on an experimental basis and found to enhance efficiency of service delivery specifically of government scheme to a large extent. The case study of Samarthan-UNICEF supported pilot in Sehore reflect on the same (Panchayat and community-based monitoring system in Sehore District of Madhya Pradesh- [www.kcci.org.in/frontdocs.asp?docid=141](http://www.kcci.org.in/frontdocs.asp?docid=141) ).

In case of Localized Food Model strategy, as strategy builds on the community strength and participation, it has an inbuilt community based monitoring and evaluation system. Community based monitoring and evaluation mechanism wherein mother's group as part of community along with Panchayat shall be given more active role in monitoring the stock and quality of supplementary nutrition. It shall also be made mandatory to display the stock situation outside Angawndi Centre. Besides, community shall also be involved in monitoring the quality of services provided.

**In order to come up with a unified strategy for strengthening and sustaining Local Food Model, study propose to conduct a separate pilot study** analyzing the feasibility and advantage of integrating weaning food component in existing LFM and also the impact of providing more regulatory power to Panchayat and Community on sustenance of LFM.



**Figure 6: Accountability Matrix**

### 18.3 Building Operational Efficiency: Strengthening existing infrastructure and support for robust monitoring and supervision

The third strategy at operational level is to build operational sufficiency to strengthen the system to respond to community demand in a more effective and efficient manner. The suggested strategies to strengthen the system, based on the study findings are mentioned below:

#### ➤ Strengthening infrastructure of the Anganwadis

Existing infrastructure of the anganwadis is a key concern in effective delivery of targeted services by the anganwadi. The analyses shows that almost 54 percent of the anganwadis are running from a rented building, only half of the anganwadis are *Pucca*, almost 60 percent do not have toilet facilities and almost 23 percent are devoid of drinking water facilities. This being key issue, mechanism for developing necessary infrastructure needs to be explored and operationalized.

Opportunities in this reference exists TSC, State Planning Commission and untied funds with the *panchayat*. The scheme for constructing low-cost toilets in anganwadis under the TSC (Unit cost Rs. 5000/) may be accessed for providing toilets (DDWS guidelines on design of Toilets for anganwadi's). Similarly Accelerated Rural Water Supply Programme can be accessed for providing drinking water facilities in the AWCs. For construction of AWCs, Revenue-based PPP model in areas where there is ability and willingness to pay (Lets say urban areas) and Grant-Based PPP models (CSR) could be explored. *Panchayat* Plan here can serve as an effective instrument for leveraging resources however forging effective linkages with *panchayat* would be prerequisite.

- **Provisioning for supplies**

During the study, almost one third of the AWWs reported not having pre-school education kits. Also, of those having pre-school kits, almost 60 percent reported having received them 2 years back. Only 56 percent of the AWCs were found to have outdoor-indoor play material. IEC material was available in around 48 percent of AWCs and that too couple of years back. Approximately 22 percent AWCs had medicine kits and around 58 percent had growth charts though not in sufficient number. Approximately 45 percent of the AWCs had both adult and baby weighing scales, the rest had either one of them or none. CAG report of MP for 2007-08 in this regard has commented on the same. (See adjoining Box below).

**Non procurement of medicine and pre-education kits of Rs.22.85 crore**

***Procurement of medicine and pre-education kits***

GOI provides funds each year to the Directorate for procurement of medicine/education kits for health check and informal education of children and pregnant/lactating mothers. The kits were provided during 2003-06. It was, however, noticed that despite receiving Rs.22.85 crore during 2006-08 The Directorate could not provide medicine and education kits to AWC for the last two years and amount was transferred to civil deposit in March 2007 and 2008. Thus the identified facilities did not reach the beneficiaries at the AWC's during 2006-08. The department attributed it to delay in tendering process which is a weakness of the control mechanism of procurement leading to significant compromise in the objectives of the scheme. In exit conference the department informed that process was being expedited.

Expediting the process of procurement and redistribution of educational and medicine kits as well as ensuring continuous supply is therefore necessary.

**There were savings ranging from 15 to 44 per cent during 2003-08.**

***Savings***

Details of budget provisions, under seven 4 grants and expenditure incurred shows the savings during 2003-08 as at Appendix 5.1. The savings of 15 to 44 per cent was attributed by the department to absence of demand from DDOs, non-procurement of medicine and education kits, etc. and making provisions for vacant posts. The entire provision of Rs.163.82 crore under Central Sector Schemes and Rupees three crore under State Sector Schemes under five 5 grants remained unutilized. In exit conference, departmental officials stated that funds were received late from GOI and periodical change in policy led to surrender of funds.

**Rs.42.48 crore were transferred to Civil Deposit thereby, inflating the expenditure without spending and Rs.24.38 crore remained unutilized in CD/PD account.**

***Transfer of funds to Civil Deposit***

MP TC prohibits drawal of funds from treasury unless required for immediate disbursement. It was noticed that the Central assistance of Rs.42.48 crore received for distribution of medicines and educational kits, were transferred to Civil Deposit (CD) during 2003-08. Only Rs.17.97 crore were utilized in subsequent years while Rs.1.30 crore were allowed to lapse due to non-utilization of same within three years and Rs.23.21 crore was still lying in CD as of March 2008. Further out of funds deposited in Civil Deposit prior to 2003-04 Rs.5.75 crore lapsed to State revenue during the period. Parking of fund in CD was irregular and led to overstatement of the expenditure while distorting the allocation of subsequent years. Also, the expected benefits of distribution of the medicines and educational items did not reach the beneficiaries, as Rs.7.05 crore of central fund meant for the above purposes became a source of unintended revenue of the state and Rs.23.21 crore remained unutilized.

Audit Report (Civil), Madhya Pradesh for the Year 2007-2008 [http://www.cag.gov.in/html/cag\\_reports/mp/rep\\_2008/civil\\_chap\\_5.pdf](http://www.cag.gov.in/html/cag_reports/mp/rep_2008/civil_chap_5.pdf)



- **Enhancing Monitoring efficiency**

Continuous monitoring of processes and outputs is prerequisite for timely action towards course correction in the quest for envisioned objectives of ICDS. And therefore adequate investment in M&E systems and capacities is necessary. At the present juncture, there is considerable scope for improvement as well as making the existing system more efficient.

As regard to the existing system, the two crucial monitoring-levels are the anganwadi level. At the anganwadi level, the key parameter to be monitored is the growth of the children in the target age group. The two key instruments in this regard are the weighing scale and the growth chart. Almost 91 percent of the AWCS have baby weighing scales, however, almost two-fifth was found to be inaccurate. Given the sensitivity of measurement, accuracy of the device is a key concern in growth monitoring as a small deviation shifts a child from healthy to malnourished. Similarly, growth charts were found to be available in approximately 58 percent of the AWCs. However, in 45 percent of the AWCs, the charts were not in sufficient number. Recent intervention has been of different colored growth charts for boys and girls; however, they have reached only a few of the AWCs. Also, almost 91 percent of the AWW reported regular weighing of children however only around 64 percent recorded the same in the registers. This necessitates multi-pronged approach. The first is to repair and replace the erroneous weighing machines. Second, the growth charts need to be made available in all the AWCs. Third, it is highly advisable to reorient the AWWs in use of filling-up growth charts as soon as possible. The same could be outsourced to a competent agency and funds leveraged from UNICEF/UNFPA who have training budget for initiatives of similar nature.

#### **Grading system**

It is proposed to come up with a grading system based on the key indicators such as:

- ✓ Number of Malnourished children in AWC
- ✓ Immunization Status
- ✓ Maintenance of Records
- ✓ Cleanliness at AWC
- ✓ Distribution of Food to Beneficiary
- ✓ Presence of Weighing scale and Growth Monitoring Chart

Based on the above indicators it is proposed to come up with a grading system for the Anganwadi starting from A to D. The grading system shall help not only in better utilization of the data for decision making but will also bring a sense of self monitoring.

- **Coordination for convergence with other programmes**

There is evidence of joint planning and implementation of activities targeting health and nutrition of children and mothers through cross-departmental initiatives of health, Panchayat and Rural development, Department of Education and PDS. This gets exemplified by activities like immunization, village health and nutrition day, referral services to PHC and NRC, engagement of SHGs in supply of food items, construction of AWCs, enrolment of children into schools etc. However, there are next generation issues viz. sibling care impeding enrolment of girls in schools the same being the mandate of AWCs. This requires for a greater coordination as well as joint planning on part of the two department concerned i.e. School education and ICDS. Joint planning with



committed human and financial resources and well defined deliverables are mandated for ensuring mutually beneficial outcomes. Stakeholder mapping in this regard is requisite so as to identify stakeholders getting impacted and impacting intended outcomes. Process of joint planning can therefore be initiated for converging and allocating resources facilitating convergence.

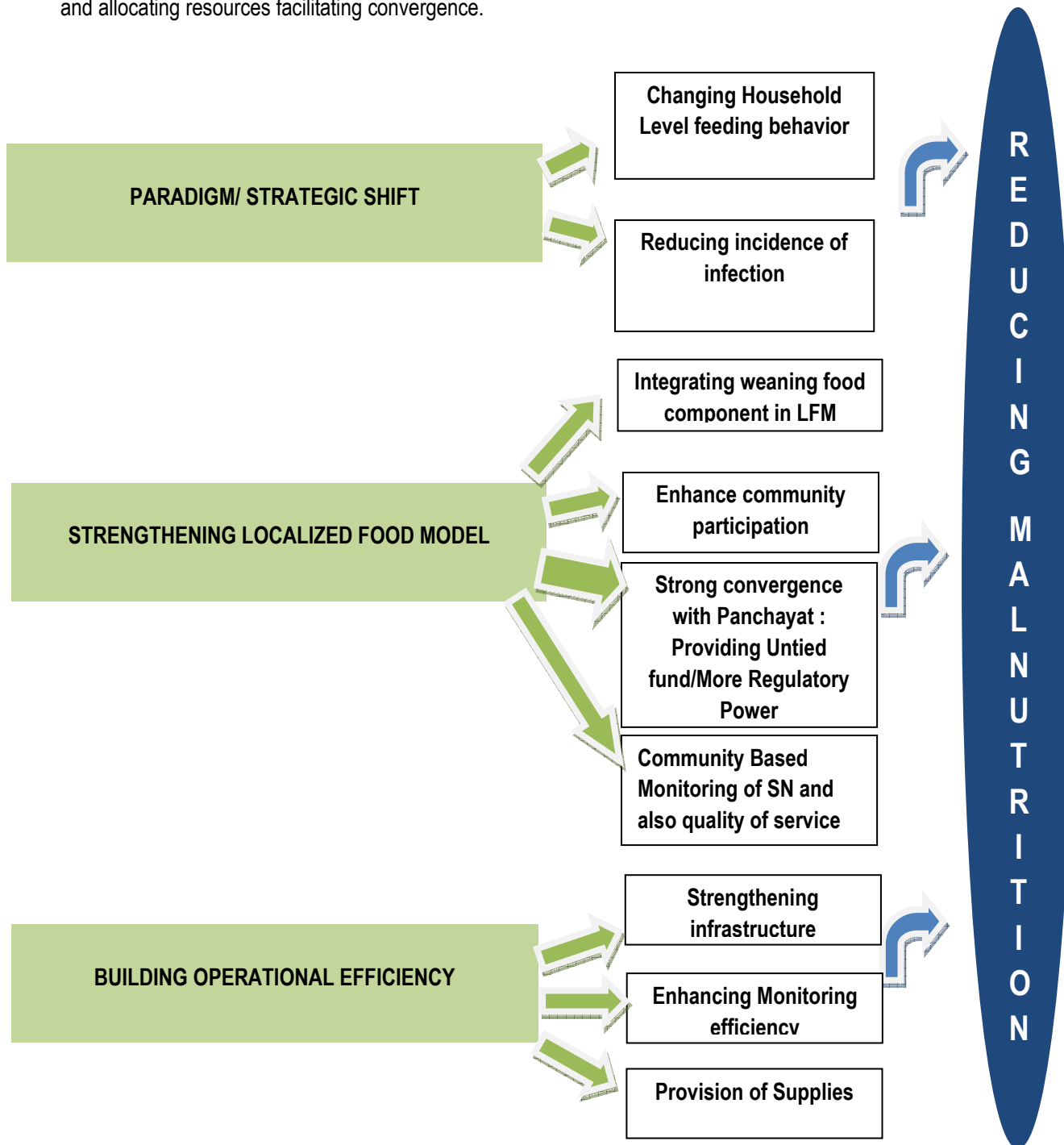


Figure 7: Schematic Representation of Strategies

## Chapter-5 Awareness of AWC and its services

Table A-5.1 Awareness and accessibility to AWC

	Pregnant Women				Lactating Women				Mother of 6 mon-3yr				Mother of 3-6yr			
	Type of Block			Total	Type of Block			Total	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal	
Awareness of AWC in the village	94.3	98.3	100.0	98.1	95.9	96.7	96.8	96.6	95.7	99.8	99.6	99.3	96.1	94.4	99.8	96.5
Unweighted N	333	638	211	1182	294	551	280	1125	296	603	344	1243	301	603	340	1,244
Distance of AWC																
<100 meters	51.7	39.4	36.8	40.6	56.1	41.1	44.6	44.1	60.4	51.7	28.3	46.0	59.5	54.4	37.6	51.9
100-500 meters	30.4	36.4	27.4	33.6	28.0	39.0	29.4	34.7	27.9	35.4	38.0	35.2	27.4	22.4	28.5	26.1
<b>0-500 mtrs</b>	<b>82.1</b>	<b>75.8</b>	<b>64.2</b>	<b>74.2</b>	<b>84.1</b>	<b>80.1</b>	<b>74.0</b>	<b>78.8</b>	<b>88.2</b>	<b>87.1</b>	<b>66.2</b>	<b>81.2</b>	<b>86.9</b>	<b>76.8</b>	<b>66.1</b>	<b>78.0</b>
500-1000 meters	13	14.9	17.3	15.2	11.7	10.6	13.8	11.7	9.2	8.2	18.7	11.4	8.5	15.2	19.9	13.7
>1000 meters	4.9	9.3	18.5	10.7	4.1	9.4	12.2	9.5	2.5	4.7	15.1	7.5	4.6	8.0	14.0	8.2
Time taken to reach AWC																
<10 minutes	74.2	69.8	61.7	68.6	78.7	74.4	62.4	71.4	79.0	77.1	64.6	73.7	87.3	77.4	69.1	79.2
10-30 minutes	20.2	20.7	23.4	21.2	15.4	16.5	23.3	18.3	17.7	17.8	22.7	19.2	10.4	17.6	20.8	15.5
30-60 minutes	5.6	9.6	14.9	10.2	6.0	9.1	14.3	10.3	3.3	5.1	12.6	7.1	2.4	5.0	10.1	5.3
Unweighted N	314	627	211	1160	282	533	271	1087	283	602	343	1234	289	569	339	1201

Table A-5.2 Services availed by pregnant women

Services availed by pregnant women	Type of Block			Total
	Urban	Rural	Tribal	
Supplementary nutrition during pregnancy	34.6	46.2	53.1	46.1
Advice regarding Pregnancy care	9.4	11.7	6.4	10.2
Advice regarding delivery Care	7.2	7.4	5.1	6.9
Advice for post natal care and breastfeeding practices	1.1	1.7	1.5	1.6
Advice regarding nutrition and health	7.6	7.3	7.2	7.3
IFA tablets	32.1	44.2	44.4	42.5
TT vaccination	37.1	61.4	53.2	56.2
Advice for family planning	2.9	2.5	5.7	3.2
Referral services	0.3	0.0	0.0	0.0
Other	1.6	1.8	0.4	1.5
Unweighted N	180	476	140	796

Table A-5.3 Services availed by lactating women

Services availed by lactating women	Type of block			Total
	Urban	Rural	Tribal	
Supplementary nutrition during pregnancy	69.2	59.4	81.0	66.9
Supplementary nutrition during lactation	36.8	48.2	69.2	52.9
Advice regarding Pregnancy care	10.6	4.5	3.3	4.9
Advice regarding delivery Care	7.2	5.1	4.4	5.1
Advice for post natal care and breastfeeding practices	6.1	2.2	2.4	2.7
Advice regarding pregnancy care /delivery/ breast feeding	13.2	3.8	4.5	5.1
Advice regarding nutrition and health	60.9	66.4	69.5	66.6
IFA tablets	74.6	87.1	80.8	83.7
TT vaccination	3.2	4.6	2.1	3.7
Other	0.8	1.3	0.0	0.8
Unweighted N	204	451	212	867



Table A-5.4 Services availed by mother of 6mon-3yr old child

Services availed by mother of 6mon-3yr old child	Type of Block			Total
	Urban	Rural	Tribal	
Supplementary nutrition for children from 6 months to 6 years	42.5	57.6	54.7	55.2
Supplementary nutrition during pregnancy	53.3	46.7	51.5	48.7
Supplementary nutrition during lactation	29.8	31.7	21.8	28.8
Advice regarding Pregnancy care/Delivery/ Breastfeeding	5.3	1.6	2.0	2.1
Advice regarding nutrition and health	11.6	6.4	3.6	6.2
IFA tablets	56.7	58.6	66.8	60.6
Immunization	83.7	89.6	89.7	89.0
Genial health check up	7.1	5.5	1.8	4.7
Pre-school education for children	5	4.3	4.5	4.5
Pills and condoms for birth spacing	0.4	0.3	0.3	0.3
Family planning advice/ counseling	1.1	1.1	1.2	1.1
Disease prevention/ medical treatment of sick child	0.9	0.0	0.0	0.1
Other	0.0	0.5	0.4	0.4
Unweighted N	224	536	273	1033

Table A-5.5 Services availed by mother of 3-6 year old child

Services availed by mother of 3-6 year old child	Type of Block			Total
	Urban	Rural	Tribal	
Supplementary nutrition for children between 3- 6 years	71.0	76.8	68.6	72.2
Supplementary nutrition during pregnancy	33.1	41.0	38.4	37.2
Supplementary nutrition during lactation	19.3	29.0	25.6	24.3
Advice regarding pregnancy care /delivery/ breast feeding	4.9	5.5	5.5	5.2
Advice regarding nutrition and health	18.3	8.3	20.2	15.5
IFA tablets	40.3	53.1	53.2	48.2
Advice for family planning	3.1	1.9	3.3	2.8
Immunization	73.3	82.8	73.3	76.4
General Health Check up	6.2	8.1	10.0	7.9
Pre-school education for children	28.5	28.9	31.4	29.5
Pills and condoms for birth spacing	2.3	1.3	2.1	1.9
Disease prevention/medical treatment of sick child	0.0	0.4	0.4	0.2
Unweighted N	206	445	273	924

Table A-5.6 Knowledge of Schemes under ICDS

Knowledge of Schemes under ICDS	Pregnant Women				Lactating Women				Mother of 6mon-3yr				Mother of 3-6yr			
	Type of Block			Total	Type of Block			Total	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal	
Aware of Mangal Diwas Yojana	43.2	43.2	40.4	42.6	73.2	66.1	57.9	64.6	49.0	47.1	33.3	43.3	40.8	29.0	28.8	34.0
Aware of Poorak Poshan Aahar	67.2	72.0	66.4	70.1	78.3	71.4	74.8	73.2	11.6	6.0	13.6	8.9	82.2	89.5	77.6	83.7
Aware of Janani Suraksha Yojana	58.6	58.3	55.1	57.7	-	-	-	-	2.4	0.8	0.8	1.0	69.8	66.0	43.9	62.7
Aware of Janani Express Yojana	12.2	12.3	18.6	13.6	-	-	-	-	-	-	-	-	-	-	-	-
Ladli Lakshmi Yojana	15.9	5.4	11.4	8.1	45.9	37.2	54.9	43.4	65.3	58.3	73.3	63.5	60.8	37.9	35.4	47.1
Shaktiman Yojana	-	-	-	-	-	-	-	-	83.5	78.0	61.9	74.0	1.4	0.9	0.4	1.0
Any Other	-	-	-	-	-	-	-	-	2.5	0.5	0.7	0.8	-	-	-	-
Aware of Stanpan Diwas	-	-	-	-	5.1	5.5	4.4	5.1	-	-	-	-	-	-	-	-
Aware of Bal Sanjeevani Abhiyan	-	-	-	-	15.9	14.3	32.1	19.7	-	-	-	-	2.1	2.8	0.0	1.9
Aware of Bal Shakti Yojana	-	-	-	-	5.6	8.1	4.0	6.6	-	-	-	-	1.9	0.8	0.0	1.1
Unweighted N	329	635	211	1,175	283	542	280	1,105	291	602	343	1,236	213	430	195	838

Table A-5.7 Participation in schemes

	Pregnant Women				Lactating women				Mother of 6mon-3yr			
	Type of Block			Total	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal	
Ever participated in Mangal Diwas	58.4	57.4	65.4	59.2	81.4	66.6	58.4	66.5	66.5	64.5	65.7	65.0
Unweighted N	142	291	88	521	147	297	123	567	148	291	109	548
Receiving Benefits under Poorak Poshan Aahar	56.1	66.2	76.4	67	-	-	-	-	-	-	-	-
Ever participated in Stanpan Diwas	-	-	-	-	52.9	13.4	16.4	18.8	-	-	-	-
Receiving Benefits under any scheme	72.9	78.1	81.7	78.6	75.2	80.8	74.3	78.3	78.1	81.7	70.9	77.7
Unweighted N	171	371	193	735	268	550	302	1120	213	430	195	838

Table A-5.8 Utilization of benefits under the schemes

Receiving benefits	Mother of 6mon-3yr				Mother of 3-6yr			
	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal	
Bal Sanjeevani Abhiyan	3.9	2.7	12.7	5.6	0.7	1.7	0.0	0.9
Bal Shakti Yojana	0.4	0.0	0.0	0.1	0.0	0.2	0.0	0.1
Ladli Laxmi Yojana	4.8	2.7	2.0	2.7	2.9	3.9	5.5	3.8
Shaktiman Yojana	0.5	0.0	0.6	0.2	0.6	0.0	0.0	0.3
Poorak Poshan Ahar	59.2	56.9	80.4	63.5	88.4	95.7	91.9	91.8
Mangal Diwas Yojana	-	-	-	-	13.6	9.1	9.1	11.0
Janani Suraksha Yojana	54.4	64.7	18.2	51	19.5	25.9	4.9	18.8
Other	0.0	0.8	0.8	0.7	-	-	-	-
Unweighted N	202	440	224	866	-	-	-	-

Table A-5.9 Sources of Knowledge on Schemes

Sources of Knowledge on Schemes	Pregnant Women				Lactating Women				Mother of 6mon-3yr				Mother of 3-6yr			
	Type of Block			Total	Type of Block			Total	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal	
<b>Mass Media Source</b>																
Radio	1.7	00.6	0.4	0.7	0.0	0.0	0.0	0.0	5.4	2.0	2.1	2.4	1.6	2.7	3.1	2.3
TV	17.0	4.9	1.4	5.9	10.4	3.3	1.0	3.3	39.6	7.1	2.2	9.6	22.5	10.6	9.2	15.4
Newspaper/Magazine	1.8	0.4	0.0	0.5	0.6	0.0	0.0	0.1	7.6	1.9	0.4	2.1	4.8	0.5	1.2	2.5
Poster/Pamphlets	2.1	0.0	0.0	0.3	0.0	0.6	0.5	0.5	3.8	1.1	0.0	1.1	2.0	0.0	0.0	0.9
Hoardings	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.6	0.8	0.2	0.6	1.7	0.0	0.0	0.7
Wall Paintings	0.7	0.3	0.0	0.3	1.2	0.3	0.0	0.3	31.2	44.6	9.3	33.0	0.9	0.0	1.6	0.8
<b>Inter-personal Communication Source</b>																
ANM/Doctor	17.0	25.4	6.8	20.2	10.8	10.4	4.3	8.5	34.2	35.1	11.3	28.2	10.6	17.6	10.5	13.0
ASHA					10.2	11.1	20.4	14.0					15.6	12.3	8.5	12.9
AWW	45.6	59.8	61.0	58.1	87.9	68.8	85.7	76.4	71.8	72.1	84.4	75.6	71.9	78.4	73.6	74.5
Panchayat members	0.0	0.1	0.0	0.1	0.0	0.4	0.0	0.2	0.3	1.4	1.0	1.2	0.0	0.6	0.4	0.3
NGO	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.4	0.1
SHG members	0.9	0.1	0.0	0.2	0.0	0.3	0.0	0.2	0.3	0.6	0.0	0.4	0.1	0.0	0.0	0.1
Teacher	1.5	0.1	0.0	0.3	0.0	0.3	0.0	0.2	0.6	0.4	0.0	0.3	0.0	0.2	0.0	0.1
Dai	0.0	0.7	0.5	0.6	0.6	0.0	0.0	0.1					0.6	0.9	0.0	0.6
Friend/relative/neighbor	42.5	32.9	20.9	31.6	63.0	43.7	40.2	44.7	48.5	36.8	22.6	34.2	52.3	55.3	20.7	46.2
Others	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.6	0.0	0.4	0.3	0.4				
Unweighted N					125	297	153	575	268	550	302	1120	296	569	339	1,204

Table A-5.10 Services from AWC in last 3 months

Services from AWC in last 3 months	Mother of 6 mon-3yr			Total
	Type of Block			
	Urban	Rural	Tribal	
Met AWW in last 3 months to talk about care and feeding of child	41.6	41.8	45	42.7
Unweighted N	296	603	344	1243
Advice provided by AWW				
Advice on breastfeeding	6.5	1.0	7.9	3.7
Advice on child immunization	58.5	70.4	46.0	61.6
Advice on supplementary nutrition	57.3	51.1	68.1	57.0
Advice on family planning	20.8	14.7	16.4	15.9
Unweighted N	129	248	150	527

## Chapter-6 –Antenatal Care

Table A-6.1 Registration of pregnancy

	Pregnant Women			
	Type of Block			Total
	Urban	Rural	Tribal	
First pregnancy	41.9	31.4	29.3	32.4
Registration of Pregnancy	81.6	78.8	79.6	79.4
Unweighted N	333	638	211	1182
Place of registration				
AWC	66.6	86.2	84.1	82.9
Sub centre	1.0	4.8	8.1	5.0
PHC/CHC/Govt. Hospital	34.3	13.3	9.7	15.5
Private hospital/clinic	11.8	1.3	2.8	3.2
Unweighted N				
Registered within one month of pregnancy	30.5	11.0	26.1	17.1
Unweighted N				

Table A-6.2 Services received

Services received during pregnancy and source of services	Pregnant Women			
	Type of Block			Total
	Urban	Rural	Tribal	
ANC during pregnancy	79.3	58	59.2	61.2
Unweighted N	333	638	211	1182
Received at least 3 ANC	40.9	26.2	16.3	26.8
Unweighted N	259	367	124	750
Received at least 2 TT	65.8	72.3	47.8	66.5
Unweighted N	333	638	211	1182
<b>Source of TT</b>				
AWC	37.6	59.6	51.9	54.9



Sub Centre	1.1	4.8	6.8	4.7
PHC/CHC/Govt. hospital	31.5	15.5	12.0	17.0
Private clinic	23.9	5.9	7.7	8.8
At home	0.6	5.0	2.1	3.8
Other	0.0	1.5	0.9	1.3
Unweighted N	289	553	159	1001
<b>Source of IFA tablets</b>				
AWW	28.2	37.4	31.6	34.9
ASHA/LHV/MPW	6.2	5.1	9.7	6.2
ANM	15.9	17.1	19.3	17.4
Private	9.0	3.4	4.9	4.5
Unweighted N				

Table A-6.3 De-worming and Anemia

	Pregnant Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Received de-worming tablet during pregnancy	0.8	0.6	0.7	0.7
Received anti-malaria tablets pregnancy	3.2	2.9	1.5	2.6
Underwent testing for anemia during pregnancy	48.2	31.0	34.6	34.2
Underwent testing for malaria during pregnancy	19.1	11.1	11.9	12.4
Unweighted N	333	638	211	1,182

Table A-6.4 Advise received by AWW

Advise received by AWW	Pregnant Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Taking more rest than usual	5.4	5.2	4.2	5.0
No heavy work	7.3	5.8	5.5	5.9
Intake of nutritional food	13.5	12.3	17.3	13.5
Registration of pregnancy	15.5	17.7	10.4	15.9
At least 3 ANC check ups	12.4	13.0	6.3	11.5
Consume IFA tablets	14.6	13.6	8.0	12.5
Taking two TT vaccination	18.3	20.3	14.7	18.8
About the signs of complications	0.0	1.1	0.0	0.7
Unweighted N	40	183	64	287

Table A-6.5 Knowledge given by AWW on complications during delivery

Knowledge given by AWW on complications during delivery	Pregnant Women			
	Type of Block			Total
	Urban	Urban	Urban	
Nothing	15.4	16.0	18.0	16.3
Excessive bleeding	0.6	1.8	0.9	1.4
Convulsions/Fits	0.6	1.4	0.0	1.0
Prolonged labour	3.2	2.1	1.5	2.1
High fever	5.1	3.3	0.4	2.9
Anemia	4.5	4.1	2.8	3.9
Swelling	5.1	5.3	3.9	5.0
Unweighted N	40	183	64	287

Table A-6.6 Advice from family during pregnancy

Who gave advice	Pregnant Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Mother	53.1	47.9	24.2	45.1
Mother in law	74.5	74.4	65.5	73.0
Husband	53.7	56.0	44.3	53.8
Other women of the house	21.5	35.0	24.2	30.8
Relatives outside the house	29.4	13.8	23.1	18.1
Neighbours/friends	10.1	5.8	7.2	6.8
<b>Advise received from the family</b>				
Take more rest	40.7	31.6	12.1	28.5
No heavy work	48.4	38.2	24.6	36.7
Reduce work load	35.6	26.2	8.0	23.6
Take nutritious diet	62.7	45.2	27.3	43.7
Go for check up	44.8	28.8	13.3	27.7
Take TT vaccination	23.2	19.2	15.2	18.9
Unweighted N	234	349	85	668

Table A-6.7 Source of information about pregnancy care

Source of information about pregnancy care	Pregnant Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Radio	0.3	0.2	0.0	0.2
TV	17.2	5.0	1.4	5.9
Newspaper/Magazine	1.5	0.1	1.0	0.5
Poster/pamphlets	1.0	0.0	0.0	0.1
Hoardings	0.5	0.0	0.0	0.1
Wall Painting	0.6	0.0	0.0	0.1
ANM/Doctor	56.7	47.3	28.3	44.5

**Annexure - Tables**

AWW	38.3	56.4	41.0	50.6
Panchayat members	0.3	0.0	0.0	0.0
NGO	0.2	0.0	0.0	0.0
SHG members	0.9	0.1	0.3	0.3
Teacher	0.9	0.2	0.0	0.2
Dai	0.0	0.8	0.0	0.5
Friend/relative/neighbour	47.3	30.2	28.5	32.2
Other	1.1	2.5	4.3	2.7
Unweighted N	333	638	211	1182

## Chapter-7 Supplementary Nutrition

Table A-7.1 Number of days for which supplementary food is received during the past one month

Number of days for which supplementary food is received during the past one month	Pregnant Women			
	Type of block			Total
	Urban	Rural	Tribal	
Up to one week	29.5	18.6	40.0	25.3
Between 1 week to 15 days	37.3	50.9	27.9	43.5
More than 15 days	13.2	12.3	6.8	11.0
More than 21 days	17.3	14.2	23.9	17.1
Don't remember	2.7	3.9	1.4	3.1
Unweighted N	135	3310	123	589

Table A-7.2 Food last received from AWC

When did you last received food from AWC	Lactating Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Yesterday	21.9	22.2	9.3	17.5
Last week	66.4	48.9	56.5	53.4
Last month	9.1	22.4	28.8	23.4
Unweighted N	101	257	149	507

Table A-7.5 Quantity of Food

	Pregnant Women				Lactating Women				Mother of 6 mon-3yr				Mother of 3-6yr			
	Type of Block			Total	Type of Block			Total	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal	
Respondents who think that quantity of food received was sufficient	87.5	71.4	88.0	77.5	96.7	89.8	90.5	90.8	85.0	69.5	91.7	77.5	67.4	61.2	66.6	65.0
Aware about prescribed quantity of food	18.8	38.8	37.2	36.2	35.1	48.0	53.2	48.6	34.1	26.6	19.4	25.2	24.3	25.3	10.4	20.8
Unweighted N	135	331	123	589	101	257	149	507	137	308	173	618	170	375	233	766

Table A-7.6 Supplementary Nutrition Intake

Supplementary Nutrition Intake	Pregnant Women				Lactating Women			
	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal	
Take home food shared with other family members	78.9	69.4	72.9	71.3	80.5	85.2	81.3	83.3
Unweighted N	135	331	123	589	101	257	149	507
All food shared	0.0	2.7	5.4	3.1	12.4	8.2	9.8	9.2
Half food shared	64.7	67.0	50.9	62.5	41.1	40.6	41.0	40.8
Less than 1/4th food shared	29.7	28.3	41.8	32	36.7	44.0	42.9	42.9
Not sure	5.5	2.0	2.0	2.5	0.0	0.0	0.0	0.0
Unweighted N	104	234	85	423	91	242	140	473

Table A-7.7 Quality of food

Perception on quality of food	Pregnant Women				Lactating Women				Mother of 6 mon-3yr				Mother of 3-6yr			
	Type of Block			Total	Type of Block			Total	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal	
Good quality	48.9	46.3	65.3	51.5	48.3	53.9	38.0	47.6	47.2	42.7	39.9	42.3	39.5	31.0	42.6	37.4
Average quality	49.2	49.9	32.4	45.3	44.2	37.2	47.2	41.5	48.6	49.2	58.1	51.7	49.1	57.9	50.1	52.4
Poor quality	1.9	3.7	2.3	3.2	6.3	7.7	14.8	10.1	4.2	8.1	2.1	6	11.4	10.0	6.5	9.6
Unweighted N	135	331	123	589	101	257	149	507	137	308	173	618	170	375	233	766

## Chapter-8 Delivery and New Born Care

Table A-8.1 Received advice about hygiene and other preparations for delivery care

Received advise about hygiene and other preparations for delivery care	Pregnant Women				Lactating Women			
	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal	
		73.3	57.9	42.0	56.0	61.4	40.3	38.2
Unweighted N	333	638	211	1182	294	551	280	1125

Table A-8.2 Source of advice

Who advised	Pregnant Women				Lactating Women			
	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal	
ANM/ASHA	9.1	22.0	12.5	18.2	14.1	46.0	36.0	37.1
AWW	25.1	34.5	21.2	30.3	27.9	34.9	37.7	34.3
Doctor	44.7	16.1	10.3	18.8	59.3	28.4	20.5	32.4
Friends/relatives	31.9	18.9	12.6	19.4	12.2	9.6	15.3	11.6
Unweighted N	244	369	369	662	181	222	107	479

Table A-8.3 Kind of advice

Advise received	Pregnant Women				Lactating Women			
	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal	
Identify which hospital to go to	69.4	55.7	36.0	53.4	90.4	92.7	76.7	88.6
Identify vehicle to use	20.4	17.4	8.1	15.8	24.7	25.1	31.1	26.5
Decide on person to accompany	36.9	36.2	12.4	31.2	7.6	37.6	37.1	35.1
Save Money for emergency use	27.5	32.6	15.9	28.3	13.9	10.4	9.3	10.4
Other	0.3	0.0	0.4	0.1	4.8	6.1	11.5	7.3
Unweighted N	242	384	86	712				

**Table A-8.4 Planning for delivery**

Planning for delivery	Pregnant Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Planning for home delivery	4.9	5.2	9.1	5.7
Unweighted N	242	384	86	712
Thought of whom to call for conducting delivery	16.0	12.3	23.6	16.0
Unweighted N	105	268	238	511
ANM	17.8	9.6	12.5	11.7
Doctor	41.3	11.5	13.4	15.8
Mother/Mother-in-law/ Other relative	24.3	25.0	19.9	23.0
Traditional birth attendant	26.1	62.1	68.4	60.1
ASHA	0.0	3.0	0.0	1.5
Unweighted N	17	37	31	85

**Table A-8.5 Advice received for clean and safe delivery at home**

Advice received for clean and safe delivery at home	Pregnant Women			
	Type of Block			Total
	Urban	Rural	Tribal	
No such advice received	30.9	61.4	71.2	61.4
Clean cloth for the child	24.1	29.5	18.6	24.7
Clean thread	58.1	31.4	24.0	31.8
Soap	27.0	20.9	15.5	19.6
Clean surface	28.2	19.5	13.3	18.2
New blade	66.4	34.6	27.1	35.6
Other	0.4	0.0	1.7	1.1
Unweighted N	17	37	31	85



Table A-8.6 Planning for place of delivery other than home

Planning for place of delivery other than home	Pregnant Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Not decided	8.3	9.1	22.3	11.3
PHC/CHC/Govt hospital	76.1	87.1	74.9	83.0
Sub Health Center	0.9	0.0	0.5	0.2
Private Clinic/hospital	21.6	5.0	3.3	7.5
Unweighted N	228	370	73	671

Table A-8.7 Place of birth

Place of birth	Lactating Women				Mother of 6mon-3yr				Mother of 3-56yr			
	Type of Block			Total	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal	
Sub Centre	0.0	0.0	0.4	0.1	0.0	1.0	0.2	0.7	0.0	0.0	0.2	0.1
PHC/Govt Hospital	73.1	82.1	64.6	75.8	66.8	65.8	53.3	62.3	53.8	27.0	18.0	35.5
Pvt Clinic/Hospital	17.5	4.1	0.7	4.9	19.4	8.2	3.5	8.2	16.3	6.0	6.3	10.2
At home	9.4	13.8	34.2	19.2	13.8	24.9	42.9	28.8	29.6	66.6	75.5	54.0
Unweighted N	294	551	280	1,125	296	603	344	1243	301	603	340	1,244

Table A-8.9 Assistance during home delivery

Assistance during delivery	Lactating Women				Mother of 6mon-3yr				Mother of 3-6yr			
	Type of Block			Total	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal	
Self	3.9	3.3	1.7	2.5	0.5	0.3	1.0	0.5	0.7	4.1	4.8	2.9
Traditional Birth Attendant/Dai	67.3	66.2	73.4	70.0	11.8	18.9	31.4	21.6	25.7	51.2	61.5	43.6
ANM	12.6	2.8	0.8	2.4	26.7	41.0	36.8	38.1	12.0	13.7	2.0	9.9
Govt Doctor	5.4	1.4	0.0	0.9	42.6	27.7	17.8	26.6	45.7	18.4	17.6	29.2
Pvt Doctor	0.0	2.0	0.0	0.8	16.9	6.5	3.0	6.7	13.6	4.7	7.1	8.9

Mother/mother in law/other relative	10.7	22.8	24.1	22.6	1.6	5.7	10.1	6.4	2.3	7.7	6.8	5.2
Unweighted N	29	77	96	202	296	603	344	1243	301	603	340	1,244

Table A-8.10 Assistance by dai during home delivery

Assistance during delivery	Mother of 6mon-3yr			
	Type of Block			Total
	Urban	Rural	Tribal	
Assisted by trained dai	58.6	40.5	17.6	32.1
Assisted by untrained dai	38.8	57.7	71.8	62.4
Not known	2.6	1.8	10.6	5.5
Unweighted N	35	116	110	261

Table A-8.11 Safe delivery practices

Safe delivery practices	Lactating Women				Mother of 6mon-3yr				Mother of 3-6yr			
	Type of Block			Total	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal		Urban	Rural	Tribal	
Used clean surface for delivery	87.3	88.8	53.2	70.1	90.2	78.9	60.8	71.8	78.9	69.9	49.9	64.5
Used soap to wash hands before assisting delivery	78.2	80.6	50.0	64.5	87.9	79.1	69.6	75.6	70.7	57.0	50.9	57.8
Used new blade to cut the cord	93.9	94.0	70.7	81.9	85.3	84.5	70.9	78.7	90.7	78.0	71.0	78.2
Used clean thread to tie the cord	90.5	94.1	59.4	75.8	85.3	81.5	67	75.5	78.6	69.4	62.1	68.7
Used clean cloth to receive the child	96.6	90.4	55.8	72.8	86.1	85.1	62.1	75.3	66.8	53.1	47.3	54.0
Was anything applied on the cord after it was cut	58.1	48.2	20.2	34.3	-	-	-	-	-	-	-	-
Was anything applied on the umbilicus after it was cut	67.8	67.0	41.8	53.9	-	-	-	-	-	-	-	-
Unweighted N	29	77	96	202	41	152	153	346	91	404	262	757

Table A-8.12 Received advice from health service provider on newborn care

Received advice from health service provider on newborn care	Lactating Women			
	Type of Block			Total
	Urban	Rural	Tribal	
No one	44.7	68.4	72.6	66.4
AWW	16.1	9.8	12.8	11.6
ANM	19.2	20.2	12.3	17.8
Lady doctor	26.8	5.9	5.0	8.5
Other	0.6	0.6	2	0.9
Unweighted N	294	551	280	1,125

Table A-8.13 Advice received

Advice received	Lactating Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Provide extra warmth	32.5	25.0	19.0	25.3
Give exclusive breastfeed	73.4	66.8	65.7	68.0
Extra care of cleanliness	59.6	58.7	58.5	58.9
Referred to the hospital in case of illness	21.0	18.1	14.0	17.7
Give vaccination	1.6	2.2	3.0	2.3
Others	-	0.8	1.2	0.7
Unweighted N	156	186	80	422

Table A-8.14 New born care in first 2 weeks of birth

To protect child in first 2 weeks of birth	Lactating Women			
	Type of Block			Total
	Urban	Rural	Tribal	
No special care	18.1	22.7	35.6	25.8
Kept baby wrapped up warmly all the time	71.1	64.1	47.1	60.1
Kept baby close to the mother most of the time	26.0	25.8	11.0	21.5
Avoided bath for one or more days after birth	9.1	13.7	5.6	10.7
Did nothing because of hot weather	9.5	5.0	14.2	8.3
Don't know/Don't remember	1.1	1.3	0.8	1.1
Other	2.0	0.3	2.4	1.1
Unweighted N	29	545	278	1,113

Table A-8.15 Received advice on breast-feeding

	Lactating Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Received advice on breast-feeding	21.0	10.1	11.0	11.8
Unweighted N	294	551	280	1,125
Advise received related to breastfeeding				
Breastfeed immediately after birth	60.8	58.7	38.5	53.7
Breastfeed within 1 hr	36.9	33.1	32.3	33.8
Breastfeed after 3 days	0	1.0	3.2	1.4
Feed colostrums/first milk to the child	24.8	22.3	12.2	20.2
Do not discard/squeeze out colostrums	3.7	0.0	0.0	0.9
Breastfeed on demand	9.0	22.2	19.7	18.3
Breastfeed day and night	4.6	18.1	0.0	9.9
Give only breast milk for the first 6 months	45.2	49.5	43.8	46.9
Other	2.2	0.0	0.0	0.5
Unweighted N	69	65	34	168

Table A-8.17 Complication after child birth

Did the child suffer from any of the complications	Lactating Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Too weak / small	6.9	7.6	10.2	8.3
Congenital abnormalities	0.0	0.2	0.3	0.2
Birth Injuries	0.0	0.0	0.3	0.1
Cord infection	0.0	0.0	0.5	0.2
Body turned blue	0.0	0.2	0.3	0.2
Body cold	0.0	0.1	0.4	0.1
Jaundice	6.2	1.9	1.1	2.3
Fever	10.7	18.7	5.6	13.8
Diarrhea	6.5	9.3	2.6	7
Pneumonia	0.9	1.2	1.8	1.3
Stopped crying	0.7	0.1	0.3	0.3
Became limp / inactive	1.7	0.5	1.5	0.9
Stooped feeding well	0.0	0.9	1.3	0.9
Unweighted N	242	392	184	818

Table A-8.18 Treatment-seeking behavior for complications

What did you do about this	Lactating Women			
	Type of Block			Total
	Urban	Rural	Tribal	
Nothing	3.0	11.1	30.1	14.1
Treated at home	5.2	7.8	12.0	8.4
Took him/her to a Doctor/hospital	93.6	83.2	58.0	79.1
Called the doctor home	0.0	3.2	1.4	2.4
Consulted AWW	0.0	2.1	0.0	1.4
Consulted ANM/LHV	2.2	3.0	1.4	2.6

**Annexure - Tables**

Consulted MPW	0.0	0.0	1.8	0.4
Other	0.0	0.9	0.0	0.6
Help Received by ANM/AWW/ASHA				
Did ANM/AWW/ASHA advise during child illness	6.4	13.5	9.1	11.6
Unweighted N	38	198	64	300

## Chapter-9 Infant and Child Feeding Practices

Table A-9.1 Breast-feeding practices

	Lactating Mothers				Mother of 6 mon-3yr				Mother of 3-6yr			
	Type of Block				Total	Type of Block			Total	Type of Block		
	Urban	Rural	Tribal	Total		Urban	Rural	Tribal		Urban	Rural	Tribal
Ever breastfed	99.8	100.0	99.6	99.9	100.0	99.9	98.8	99.6	99.5	98.7	99	99.1
Unweighted N	294	551	280	1,125	296	603	344	1243	301	603	340	1244
Currently breastfeeding	99.7	99.8	99.1	99.6	79.6	87.0	86.4	85.9	5.4	5.2	7.9	6
Unweighted N	293	551	279	1,123	296	602	340	1238	299	595	337	1233
Gave first milk	79.8	76.4	67.6	74.3	91.3	84.8	64.0	79.6	84.1	73.1	51.6	71.8
Give anything to eat or to drink other than breast milk	25.7	22.6	28.0	24.6	-	-	-	-	-	-	-	-
Unweighted N	294	551	280	1,125	296	603	344	1243	301	603	340	1244

Table A-9.2 Exclusively breastfed in first 6 months

	Mother of 6 mon-3yr				Mother of 3-6yr			
	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal	
Exclusively breastfed in first 6 months	28.8	26.2	24.1	25.9	36.2	43.1	34	38.2
Unweighted N	296	603	344	1243	295	592	336	1244

Table A-9.3 Number and types of meals taken in last 24 hours

	Mother of 6 mon-3yr				Mother of 3-6yr			
	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal	
<b>Number of meals taken in last 24 hours</b>								
1 to 2 times	23.6	25.7	24.9	25.2	15.7	11.5	5.4	11.4
3 to 4 times	44.3	41.4	50.2	44.3	48.3	59.0	34.0	48.4
5 to 6 times	5.1	3.9	3.5	3.9	27.8	23.9	37.2	28.9
More than 7 times	0.5	0.8	0.6	0.7	6.1	4.7	15.0	8.0
Quantity of meal given at one time								
Semi-solid food								
less than 50grams	91.0	90.2	89.7	90.2	81.1	79.5	74.9	78.8
50 to 100 grams	8.3	8.5	10.3	9.0	16.2	18.7	22.9	18.9
more than 100 grams	0.8	1.3	0.0	0.9	2.7	1.9	2.2	2.3
Unweighted N	166	325	177	668	132	230	206	574
Solid food								
less than 50grams	70.3	82.8	68.0	77.1	47.3	43.2	53.1	47.7
50 to 100 grams	21.0	13.1	16.2	14.9	22.0	18.1	27.9	21.8
more than 100 grams	8.7	4.1	15.8	8.0	30.6	38.8	19.0	30.5
Unweighted N	166	325	177	668	271	564	304	1159



## Chapter-10 Child Health

Table A-10.1 Assistance by AWW/ASHA during child illness

	Mother of 3-6yr			
	Type of Block			Total
	Urban	Rural	Tribal	
Did ANM/ASHA visited during the child's illness	8.3	3.9	13.9	8.8
Unweighted N	92	191	134	417

Table A-10.2 Treatment for Diarrhea

Treatment for Diarrhea	Lactating Mothers			
	Type of Block			Total
	Urban	Rural	Tribal	
Did nothing	11.9	12.5	13.9	12.7
Gave the same treatment as prescribed	34.8	34.0	43.3	36.0
Gave ORS salts powder	44.7	21.5	20.8	25.3
Injection without admission to the hospital	0.0	11.5	0.0	7.2
Admitted and treated in the hospital	4.6	4.3	3.9	4.3
Unweighted N	41	68	25	134

Table A-10.3 Advise by AWW

AWW advised and demonstrated ORS preparation and feeding	Lactating Mothers				Mother of 6mon-3yr			
	Type of Block			Total	Type of Block			Total
	Urban	Rural	Tribal		Urban	Rural	Tribal	
	17.5	4.9	20.7	10.3	18.6	17.3	16.8	17.3
Unweighted N	41	68	25	134				

**Table A-10.4 Number of times the child suffered the problem since birth**

Treatment for Difficult/Rapid Breathing	Lactating Mothers			
	Type of Block			Total
	Urban	Rural	Tribal	
Was this the first time that child had rapid/difficult breathing	100.0	92.7	52.1	83.3
How many times since birth did the child suffer from this problem				
1	0.0	0.0	46.1	31.9
2	0.0	0.0	0.0	0.0
3	0.0	100.0	0.0	30.8
4	0.0	0.0	53.9	37.3
Unweighted N	4	11	8	24

**Table A-10.12 Treatment given during rapid/difficult breathing**

Treatment given during rapid/difficult breathing	Lactating Mothers			
	Type of Block			Total
	Urban	Rural	Tribal	
Did nothing	0.0	11.0	20.8	12.7
Gave Tablets/capsule/syrup as prescribed	41.2	78.4	31.3	65.0
Injection without admission to the hospital	0.0	0.0	22.1	5.3
Treated and admitted in the hospital	58.8	2.7	0.0	5.1
Home remedies	0.0	8.0	25.8	11.8
Unweighted N	4	11	8	24

## Chapter 11 Pre-School Education

Table A-11.1 Services availed by the child at AWC

What services the child is receiving at the AWC?	Mother of 3-6yr			
	Type of Block			Total
	Urban	Rural	Tribal	
Hot cooked for spot consumption	60.1	73.7	86.3	72.2
Ready to eat food for spot consumption	48.0	20.8	22.0	31.1
Cooked take away food	19.2	12.7	10.5	14.5
Readymade take away food	23.9	10.1	22.6	18.6
Health check up	8.1	9.7	18.2	11.5
Basic education	14.0	17.9	20.9	17.3
Unweighted N	235	480	276	991

Table A- 11.2 Food items received at AWC

What food items does your child receive at the AWC?	Mother of 3-6yr			
	Type of Block			Total
	Urban	Rural	Tribal	
Poori sabzi	19.9	36.9	48.9	35.3
Daliya	86.7	76.9	82.7	82.5
Rice-dal	9.7	30.7	21.7	20.5
Milk	0.7	0.4	0.0	0.4
Fruits	0.9	0.3	0.5	0.6
Suji ka halwa	46.3	25.3	45.2	38.5
Sweets	0.6	2.7	3.0	2.0
Pooha	1.5	21.9	5.7	10.0
Kheer	12.9	29.3	30.3	23.6
Cooked vegetables	0.7	2.0	5.4	2.5
Unweighted N	13	322	181	636

## Chapter-12 Health and Nutrition of Adolescent Girls

Table A- 12.1 Dietary Intake

Diet	Urban	Rural	Tribal	Total
<b>Ate yesterday during day and night</b>				
Any bread or chapatti	94.0	94.8	84.4	92.0
Rice or any other grain	73.6	56.3	65.0	66.6
Dal/pulses	66.7	69.1	70.1	68.2
Biscuits	7.0	3.0	3.8	5.1
Any pumpkin, carrots or sweet potatoes that are yellow or orange	20.6	14.4	16.0	17.8
Any dark leafy vegetables	29.5	34.4	20.7	28.9
Fruit	11.7	2.5	0.9	6.6
Meat/Fish/Eggs	4.1	0.6	1.3	2.4
Milk Products	3.3	3.0	1.7	2.8
Unweighted N	303	613	332	1248

Table A- 12.2 Number of meals in a day during the last one week

Number of meals in a day during the last one week	Urban	Rural	Tribal	Total
One time	3.7	1.7	0.6	2.4
Two time	58.3	42.5	41.7	49.8
Three Time	38.1	54.2	57.0	47.2
More than three time	0.0	1.5	0.8	0.6
Unweighted N	298	613	332	1243
Take snacks between the meals	61.8	30.9	20.8	43.2
Unweighted N	303	613	332	1248

**Table A- 12.3 Taking IFA Tablets**

Taking IFA tablets	Urban	Rural	Tribal	Total
No	97.3	95.6	91.5	95.5
Yes	2.7	4.4	8.5	4.5
Unweighted N	303	613	332	1248

**Table A-12.4 Source of tablets**

Who provides IFA tablets	Urban	Rural	Tribal	Total
AWW	77.0	78.9	69.4	74.3
ASHA/LHV/MPW	11.5	2.5	8.5	7.7
ANM	27.4	19.1	21.0	22.3
Private doctor	0.0	3.3	3.4	2.4
Unweighted N	8	27	28	57

**Table A-12.8 who monitors consumption**

Who monitors consumption	Urban	Rural	Tribal	Total
No one	0.0	10.0	2.3	3.8
Self	27.4	20.6	45.1	33.2
AWW	61.1	37.9	12.6	33.7
ANM	15.9	0.0	6.5	7.4
Mother/mother in law	47.4	35.6	33.2	38.0
Husband	0.0	4.6	3.4	2.7
Unweighted N	8	27	28	57

**Table A-12.9 Training under ICDS**

	Urban	Rural	Tribal	Total
Training received under ICDS	12.9	6.1	5.4	9.2
Training on family life education	53.6	62.1	51.5	54.9
Training on Health & Nutrition	81.5	71.1	68.1	77.7
Training on life skills	36.2	28.9	24.3	33.2

Other	0.0	2.1	0.0	0.4
Unweighted N				

Table A-12.10 Advice by AWW

Advice by AWW on-	Urban	Rural	Tribal	Total
Health	44.8	35.7	35.4	40
Nutrition	44.9	34.8	35.3	39.8
Family life	24.4	20.4	10.8	20.1
Menstruation	39.7	34.4	29.0	35.7
Unweighted N	303	613	332	1248

Table A-12.11 Source of information

other source of information	Urban	Rural	Tribal	Total
No one	0.5	0.9	3.3	1.2
ANM/ASHA	6.7	3.4	5.2	5.5
NGO	1.9	2.6	0.0	1.7
School teacher	66.2	67.0	61.5	65.4
Family members	79.5	75.6	59.1	74.0
Friend/Relation/Neighbour	50.6	43.1	38.7	46.0
TV/Newspaper	22.7	6.5	6.0	14.8
Through Training	2.8	5.0	0.6	2.9
Unweighted N	171	272	172	615

Table A-12.12 Knowledge of cause of low birth weight

	Urban	Rural	Tribal	Total
<b>Knowledge of cause of low birth weight</b>	21.1	16.0	14.7	18.2
Unweighted N	303	613	332	1248
<b>Reasons for LBW</b>				
Pregnancy at early age	36.2	30.6	58.5	38.9
Too close pregnancies	31.8	19.0	16.5	25.7

Too many pregnancies	16.7	10.8	6.2	13.2
Late age pregnancy	4.5	2.6	1.8	3.5
Weakness/Anemia during pregnancy	65.2	75.5	49.7	64.9
Premature delivery	3.3	11.6	1.8	5.1
Unweighted N	69	95	55	219

**Table A-12.13 Knowledge on type of food to be consumed for increasing blood**

Knowledge on type of food	Urban	Rural	Tribal	Total
Green leafy vegetables	78.8	63.9	57.8	69.6
Egg	13.9	4.2	8.5	9.8
Meat	6.7	2.4	4.5	5.0
Cereals	21.9	21.2	23.9	22.2
Pulses	19.1	17.5	22.7	19.5
IFA tablets/syrup	11.2	9.7	9.8	10.4
Fruits	79.8	62.6	53.4	68.7
Any other	0.4	0.0	0.0	0.2
Unweighted N	303	613	332	1248

**Table A-12.14 Knowledge about breastfeeding**

Knowledge about initiation of breastfeeding	Urban	Rural	Tribal	Total
Within 1 hour	34.2	31.8	32.9	33.2
Between 1-2 hrs	14.6	15.2	18.6	15.7
Between 2-24 hours	3.7	3.3	6.4	4.2
On second day	0.9	3.1	3.3	2.1
On third day	1.9	2.5		1.6
Don't know	44.7	44.0	38.7	43.1
Feeding of colostrum important	57.2	50.1	46.3	52.6
Unweighted N	303	613	332	1248
<b>Benefits of first milk</b>				
It is rich in Vitamin A and Protein	46.2	24.2	30.0	36.9

It develops immunity against diseases	36.5	32.6	35.8	35.3
it triggers good lactation	37.6	30.4	47.0	37.6
It is very good for child's health	47.4	54.0	40.7	47.8
It prevents night blindness	0.4	0.7	0.5	0.5
Any other	0.1	0.8		0.3
Don't know	13.9	13.1	10.5	13.0
Unweighted N	176	310	162	648
<b>Understanding of meaning of exclusive breastfeeding</b>				
Only mother's milk	61.8	54.0	58.6	58.8
Water & mother's milk	0.6	1.5	6.9	2.3
Other milk & mother's milk	3.3	3.8	4.4	3.7
Honey/Janam Ghutti & mother's milk	7.5	7.0	9.0	7.7
Baby food & mother's milk	5.7	9.6	1.0	5.7
Other liquid & mother's milk	0.0	0.6	0.0	0.2
Don't know	30.8	31.7	28.6	30.5
Unweighted N	303	613	332	1,248

**Table A-12.15 Knowledge about immunization schedule**

Knowledge about immunization schedule	Urban	Rural	Tribal	Total
Child Immunization Schedule	24.2	25.2	42.2	28.6
Pregnant Immunization Schedule	8.9	8.0	14.4	9.9
Both	19.6	18.0	5.0	15.8
None	55.8	55.9	51.9	55.0
Unweighted N	303	613	332	1248

**Table A-12.16 Knowledge on treatment from diarrhea**

Treatment in case of diarrhea	Urban	Rural	Tribal	Total
Continue breastfeeding	6.9	2.0	7.9	5.7
Increase breastfeeding	0.0	0.5	0.0	0.2
Reduce breastfeeding	0.5	0.6	0.8	0.6



Provide ORS to the child	78.6	51.2	39.5	61.7
Provide more water liquid	7.5	3.1	5.5	5.8
Go to ANM/Doctor in serious cases	30.9	26.1	37.8	31.1
DK	14.2	21.4	22.2	18.1
Unweighted N	303	613	332	1248

**Table A-12.17 Knowledge about HIV/AIDS**

	Urban	Rural	Tribal	Total
Heard of HIV/AIDS	55.5	27.3	20.0	39.2
<b>Protection from HIV/AIDS</b>				
Use sterilized needle & safe blood	61.6	50.0	50.3	57.9
Be faithful Don't have many partners	39.3	31.7	42.1	38.1
Always use condoms	15.0	15.7	12.7	14.9
Don't know	32.5	43.4	41.6	35.8
Unweighted N	167	159	60	386

**Table A-12.18 Knowledge about family planning methods**

	Urban	Rural	Tribal	Total
<b>Knowledge about family planning methods</b>	28.6	17.5	14.9	22.2
<b>Family planning methods</b>				
Condoms	26.5	22.5	39.8	27.6
Oral Pills	49.2	49.3	55.4	50.2
Copper T	22.0	15.9	23.5	20.9
Male sterilization	12.6	12.2	17.0	13.2
Female sterilization	83.2	74.6	69.1	79.1
Gel/jelly/cream	0.9	0.0	0.0	0.5
Abstinence	1.5	0.7	1.9	1.4
Unweighted N	91	104	51	246

**Table A- 12.19 Age at which girls usually get married in the community**

Age at which girls usually get married in the community	Urban	Rural	Tribal	Total
Below 10 years	-	1.4	0.3	0.5
10 - 14 years	0.7	4.2	0.5	1.6
15 - 17 years	8.5	13.0	23.0	13.1
18 years and above	85.8	69.1	67.9	76.9
Don't know	5.0	12.4	8.4	7.9
Unweighted N	303	613	332	1248

**Table A- 12.20 General time gap between marriage**

General time gap between marriage	Urban	Rural	Tribal	Total
Less than 1 month	6.9	2.4	5.1	5.2
1 - 6 months	3.1	6.3	6.2	4.8
7 - 12 months	2.9	5.3	2.2	3.4
1 - 2 years	11.7	16.4	6.5	11.9
More than 2 years	15.1	12.6	4.7	12.0
Depends on puberty of girl	14.9	5.6	4.1	9.7
Don't know	45.3	51.5	71.2	53.1
Unweighted N	303	613	332	1248

**Table A-12.21 Advise received on correct age at marriage**

	Urban	Rural	Tribal	Total
Someone ever advised on correct age for marriage	71.3	52.9	58.7	63.1
Total	303	613	332	1248
<b>Who advised</b>				
AWW	7.5	6.1	10.0	7.7
ANM/ASHA	0.6	0.0	0.5	0.4

NGO	0.0	0.4	0.0	0.1
School teacher	55.6	61.2	58.7	57.6
Family members	66.3	63.5	49.6	62.0
Friend/Relation/Neighbour	43.9	40.4	33.1	40.7
TV/Newspaper	28.6	9.4	8.6	19.7
Through Training	0.0	1.9	0.0	0.5
Unweighted N	210	299	187	696

Table A -12.22 Personal Hygiene

	Urban	Rural	Tribal	Total
Take bath regularly	98.7	97.5	98.2	98.2
Wash hands with soap/ash before and after meals	96.3	90.3	85.1	92.0
<b>Defecation</b>				
Personal /family toilet	77.3	20.1	10.4	45.3
Shared toilet	2.2	2.6	3.5	2.6
Community Toilet	3.7	0.1	0.9	2.0
In open	16.9	77.1	85.2	50.0
Wash hand with soap/ash after defecation	98.5	96.3	93.4	96.6
<b>Chief source of water for cooking and drinking</b>				
Tap	49.3	21.6	13.4	33.0
hand pump	34.0	60.2	60.6	47.7
Well	2.8	15.3	19.1	10.2
River/pond/lake	5.4	1.8	5.9	4.5
Other	8.5	1.0	1.0	4.6
Unweighted N				





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